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ABSTRACT

Focusing on current knowledge of the textbook in American education and society, the 11 papers in this collection represent the views of educators, publishers, state and federal education officers, librarians, authors, and industry critics. Papers in the first section, "Textbooks and Literacy," deal with the role of the textbook in the curriculum; social environments for textbook learning; cultures and textbooks; and publishers, teachers, and reading achievement. Papers in the second section, "The Textbook in the Elementary Curriculum," discuss basal readers and elementary mathematics textbooks, while those in the third section, "The Textbook in the Middle, Secondary, and Post-Secondary Curriculum," deal with a variety of topics including social pressures and textbooks, the learning process and the text in use, and cognition and the design of textbooks. The final section, "Current Issues in Textbook Publishing," contains papers on textbooks and the military; facts and myths concerning textbook publishing; diversity, pluralism, and textbooks; adopting textbooks; the history of textbook publishing in America; and the textbooks and the publishers. (FL)

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The Textbook in American Society

A Volume Based on a Conference at the Library of Congress on May 2–3, 1979

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Preface

In early May of 1979, a conference entitled "The Textbook in American Education" was held in the Whittall Pavilion of the Library of Congress. The aims of the conference were to review the state of knowledge regarding the textbook in American education and society, and through this review to stimulate future inquiries into the nature and role of textbooks and textbook publishing in our Nation's educational enterprise. Its sponsors were the Center for the Book in the Library of Congress and the U.S. National Institute of Education.

The stage for the conference was set by a landmark study published in 1955 by the University of Illinois Press. *Text Materials in Modern Education*, edited by Lee Cronbach and colleagues, presents the results of a unique study conducted by faculty of the University of Illinois. Calling themselves the Text Material Study Group, these educators met in a year-long seminar to discuss text materials within several frameworks and focused on "the questions that need to be answered." They hoped their study might "pave the way for a far more significant volume five or ten years hence," but that volume was never written. The desire to see if our current understanding of textbooks has advanced much beyond what was known in 1955 was thus a major motivation for the 1979 meeting.

Over forty educators, publishers, state and federal officials, teachers, librarians, and authors attended the sessions and participated in the discussions. To provide focus for the discussions, several persons were commissioned to prepare papers and others were asked to provide formal comments on those papers. The papers and comments were then presented in summary at the conference and were followed by general discussion. This particular volume has been prepared to provide an overview of the conference proceedings for the general reader. For the specialist, the papers themselves, with references and supplementary materials, will be available in a volume to be published by the Academic Press.

Shortly before the conference, *The New Yorker* published three articles by Frances FitzGerald about American history textbooks and their publishers, and suddenly the textbook became a topic of national interest. These articles were frequently referred to during the May 1979 conference and led to an address by Miss FitzGerald at a November 1979 meeting of the Association of American

Publishers entitled "Textbook Publishers Meet Their Critics." Miss FitzGerald has kindly given us permission to publish her remarks in this volume.

The textbook—its creation, publication, use, and role in our schools and society—is one of several topics that concern both the Center for the Book and the National Institute of Education. The textbook conference focused on the exchange of views by research-minded educators and publishers, and for this reason the nexus of research needs and textbook publishing is the major focal point of this volume. A joint conference sponsored by the Center for the Book and the National Institute of Education on the history of literacy was held in July 1980, and a second conference on textbooks, this time perhaps from an international perspective, is being contemplated.

We wish to thank Margery Maier for her valuable assistance in preparing this manuscript for publication.

John Y. Cole

Thomas G. Sticht

Introduction

Textbooks have a basic role in civilization and the role is peculiar in a number of ways. Perhaps one of the most interesting is the disproportion between the glamour and prestige of the authorship of textbooks and the significance of textbooks in the civilization. A greater disproportion than there is, perhaps, in any other kind of authorship. A textbook lacks the glamour and the scholarly prestige of other kinds of writing—usually it's not reviewed in the *New York Times*, the author is not asked to talk on Dick Cavett, and his work is seldom even mentioned in scholarly media except disparagingly. To be a textbook writer is considered to be below the competence and status of many scholars.

But textbooks are the foundation of much of our intellectual life. The dictionary definition is that a textbook is a book used as a standard work for the formal study of a particular subject. It is a standard work, and to palliate some of the criticisms that we've been hearing of textbooks, we should remind ourselves of the etymology. The *text* in *textbook* has the same origin as *text* in *textile*. It comes from the medieval Latin *Textus*, which meant a literary composition, and further, from the Old French, meaning textile or a woven thing, something which is woven together. So when people say that a textbook should be a brilliant, original flash of insight by somebody, those people are not talking about textbooks, whatever else they're talking about.

Textbook writers, as distinct from monograph writers or the writers of articles in scholarly journals, are seldom the greatest thinkers of the subject. Nobody reads Einstein on physics or Darwin's textbook on biology or Hemingway on American literature. There might be exceptions in history; perhaps I speak with prejudice there in that we have had some major American textbooks written by Beard and Morrison and others. But that might be significant, perhaps, of the lower standard of imagination required for success in history than in some other subjects.

Textbooks, then, are points of departure. They are the basic books in every subject. And to spurn them or disparage them or to give them a lesser significance than the peripheral or marginal books is to disparage the very foundation of our intellectual life.

There's another feature about textbooks which I would like to mention before I close. And that is, that in a free society textbooks are books chosen for us by somebody else. And that

distinguishes the textbook from other kinds of books. Because one of the features, one of the important features of a book by contrast with a television program, is that while the television program is only indirectly paid for by what we consume, the advertisements then being included in the cost of the product, books generally are purchases which we make voluntarily, which we can choose. We the readers, the consumers, can choose to make or not to make a book a bestseller. But the textbook is a little different from this and the textbook generally is chosen by somebody else, by the professor or by the committee or commission in the state that selects the textbook. And these people are elected or appointed by elected governmental officials.

This gives another special significance to the textbook in our civilization because in a free economy, a free society, the textbook is a special test of freedom. Can we provide basic books, foundation books, which present the consensus of a subject, chosen by a government agency or by agencies chosen by other government agencies, and yet preserve the freedom to grow and the freedom to dissent, the freedom to be free? That, I think, is the problem we're talking about here today.

Daniel J. Boorstin
The Librarian of Congress

Textbooks and Literacy

Textbooks and the Curriculum

Decker F. Walker

Decker F. Walker of Stanford University was asked to review the conclusions of Text Materials in Modern Education, *to assess the contribution made by Lee Cronbach and his associates, and to comment about potential areas of useful research. Excerpts from his paper follow.*

Once, as a graduate student at Stanford, I walked into Cubberley Library determined to spend an afternoon looking at some serious works on textbooks. My main interest was in curriculum planning, and textbooks have a very obvious and important part to play in that planning. I had read little about textbooks in my graduate work, and I assumed there was a great deal more to learn.

I was shocked to discover that there was only one serious work on the subject to be found in the library. (Cubberley Library is one of the best education libraries in the world.) There were several serious histories of textbooks, and I later read those with interest—especially Ruth Miller Elson's *Guardians of Tradition*, the only history with a thesis. And there was Hillel Black's informative work of journalism, *The American Schoolbook*. But the only book of substantial research or scholarship on textbooks was *Text Materials in Modern Education*, edited by Lee Cronbach, one of my major professors and the director of my research training program.

Like him, I was amazed at how little seemed to be known. According to the first chapter, the book arose from a year-long series of meetings at the University of Illinois in 1954. A philosopher, a sociologist, a psychologist, with help from economists, communications theorists, specialists from the textbook industry, and assorted other specialists, met once a week during that year, functioning as a seminar with a research assistant and support from the Bureau of Research and Service of the University of Illinois.

At the end of their year, the group decided that it had achieved "a new understanding of the text" and "a comprehensive examination of issues and points of view" (p. 7), and so they decided to publish. Their subtitle—A comprehensive theory and platform for research—indicates the scope of their intention.

The committee produced a sound and sensible volume. They lay out for us a broad view of the textbook as a social entity and bring to bear the full power of the knowledge then available in several important disciplines on the problem of conceptualizing the functions of the textbook. Based upon their analysis, they propose a series of problems for research. They seem to have accomplished a great deal. A graduate student with this book in hand could easily sketch a dozen fine dissertation problems. A mature investigator in any behavioral and social science could find scope for major programs of research exploring those facets of the problem that seem amenable to the tools of his or her discipline. The committee does indeed seem to me to have created a useful "platform for research," even if they did not achieve a "comprehensive theory."

Some of the main developments in curriculum for American elementary and secondary schools of the past twenty-five years include:

The *curriculum projects* in the sciences, mathematics, and foreign languages (later English and social studies) started just before Sputnik, but burgeoning in the decade just after (1957–67).

Programs for the disadvantaged, part of the Great Society programs of the late '60s.

Slow, steady movement toward *individualization* of instruction, especially in elementary schools, es-

pecially in reading, and aided by kits of curriculum materials.

Career education, the top education priority of the Nixon and Ford Presidencies.

Basic skills programs, especially competency based approaches.

Each of these developments has posed some challenge to the textbook as the focus of classroom activity. The post-Sputnik projects placed a great deal of emphasis on revision of textbook content, but they also gave renewed emphasis to laboratory work as well as to films and other instructional aids. The projects found textbooks necessary but confining for their purposes. Nevertheless, adoption of the new textbooks was the central method of spread of the new curricula they developed. And a great deal was learned of the strengths and limitations of changing curricula through revision of curriculum materials.

Programs for the disadvantaged emphasized teaching techniques more than content. Head Start and Follow Through programs concentrated attention on [illegible]s for teachers and pre-service [illegible]n-service education for teachers much more than on text materials for students. Concerns for the representation of minorities in textbooks affected the content and illustrations of texts.

Individualization of instruction has transformed the textbook into packets of loose and stapled sheets, cards, booklets, and other aids that can be assigned separately to students operating on different levels of proficiency in the subject. Commercially packaged kits designed to accompany individualized programs constitute the greatest challenge to the conventional textbook.

Both career education and basic skills movements have had only a glancing effect on textbooks. Career education has influenced the content of some textbooks, leading to the inclusion of more material relevant to careers. The basic skills movement has changed the emphasis placed on literacy skills in textbooks, especially in English and mathematics, as you would expect. Neither movement has posed a fundamental challenge to the textbook, however, nor has either concentrated particularly upon using textbooks as a vehicle for propagating the reform.

The lesson of the last quarter century of experience with the textbook in relation to the curriculum of American elementary and secondary schools seems to amount to an elaboration of one of the themes of the Cronbach volume: textbooks are a part of a complex social system. Textbooks cannot be changed at will, without rousing counter-pressures from within the ranks of teachers and from offended or threatened elements of the society. This is true even for so seemingly noncontroversial subjects as mathematics and science, as well as for the more volatile social studies and English. When changes are made, they do not automatically produce intended changes in the classrooms or in student outcomes. Teachers and students can resist or shrug off practically any features of a textbook. With the best of intentions, teachers and students may misunderstand what is intended or miss it altogether. And this is true not only for wild schemes but for the sober plans of experts.

Clearly, the key to understanding the impact of textbooks on curricula, and vice versa, lies in a better understanding of the social processes in which textbooks are created and used. Specifically, we need to have reasonably complete, accurate, and useful answers to the following questions:

- How do teachers use textbooks?
- What variables affect the way teachers use textbooks?
- How do students use textbooks?
- What variables affect the way students use textbooks?
- How do textbook features and variations in the ways textbooks are used affect student outcomes, especially long-term achievement?
- What are the reciprocal paths by which teachers', students', and others' experiences with textbooks in turn influence the form of the textbook?
- What other pressures influence the form of textbooks, and how is this accomplished?

These questions are essentially those raised in Cronbach's chapter 8, "The Text in Use," and about which he concluded "the absence of trustworthy fact . . . is amazing" (p. 216). I am sorry to report that amazement is still in order. We are only very slightly better off now than in 1955.

Social Environments for Textbook Learning

Daniel P. Resnick

Daniel P. Resnick, Carnegie-Mellon University, addressed himself to historical examples of work that "bears on learning from text in different social situations." Among other topics, he examined how religious learning from text functioned in northern and central Europe in the sixteenth and seventeenth centuries, mathematical and scientific texts in seventeenth-century France, the question-answer format that dominated text publication in the English-speaking world until at least the second decade of the nineteenth century, and "the image of text as a sacred set of principles," especially in U.S. civics textbooks. The introduction and conclusion of his paper are presented below.

At a major conference on the textbook more than twenty-five years ago, its organizer, Lee Cronbach, issued a caveat about the need to study text learning in a social context:

> One cannot really judge the functional contribution of the text alone, for the text-in-use is a complex social process wherein a book, an institution, and a number of human beings are interlaced beyond the possibility of separation.

Neither before that conference nor since, however, has such an investigation proceeded in any systematic fashion. As a result, we lack a clear sense of the different models of text in a social setting that empirical investigation—either historical, observational, or experimental—can provide. This paper is a modest contribution to the elaboration of a comparative and historical understanding of the social environment for text.

A study of text learning in social contexts will help us answer three important questions to which Professor Cronbach directed attention: What do teachers do with text? Why do they do this? How might their practices be improved, with or without modifying the texts themselves? To these questions we must add others about how text complexity and format have been dealt with, what pedagogical theories have underlain text learning, and how the expected uses of knowledge derived from text have affected the expectations for learning. An inquiry along these lines will add to our knowledge of how the use of text in different societal settings has encouraged the spread of literacy.

Reading skill in the past century was increasingly measured as the ability to answer questions about text. From a tradition of oral recitation within classrooms, we moved for more and more students to the practice of written examinations. Since the 1920s, written examinations have generally been replaced by standardized objective tests, which often require the simple selection of a correct response from a set of four or five choices. Recall of information, however, is not the only goal of this testing. Often, students will be presented with unfamiliar passages from which they are supposed to be able to extract information. Sometimes they will have to indicate the relevance of what they already know to new contexts. In that sense, the demands made by examinations have transcended the bounds of recitation that described question and answer inquiry in the religious tradition of primary level education.

Increasingly, it is the kind of reading demand that we have studied within the scientific-technical tradition that has set the standards for desired student performance. Students are required to make sense of unfamiliar material, pose their own questions as they read, and relate knowledge to contexts different from those in which the knowledge was learned. Knowledge, moreover, is

expected to be used and applied and understood well enough to be communicated to others and for new purposes.

School publishers have a large challenge before them in helping young readers use their school texts to meet these demands. There is every evidence, especially in the scientific and technical areas, that they are encouraging the reader to develop a usable body of knowledge, to pose questions as the material is read, and to read in a way that will allow success on expected examinations. For this purpose, publishers have tried to establish the difficulty level of their texts and to be sure that the level recommended for different courses and grades is appropriate for the expected audience. Perhaps more can be done in this area, so that the challenge of mastery is not lost for the reader.

It would be wise, however, to recognize that in each of the two social environments in which standards for learning from text have evolved [the home and the church], there were aids to learning from text that can no longer be depended upon. Those helpful elements in the learning environment, or substitutes for them, need to be fostered. Success in this area is not entirely within the control of textbook publishers, but if they recognize the opportunities that exist, they may be better able to help others succeed.

The family environment can be a source of stimulation and encouragement to the child as learner, but it can also be immobile and passive. Many federally supported Head Start programs since the mid-1960s have tried to compensate for early learning failures in the home. One of the current challenges to text publication for young people in schools is to design ways for family members outside the school to become involved in the learning process of the school student. The potential of text for study across generations in the home was shown, under special conditions, during the Reformation, but it has yet to be well employed for this purpose on a large scale, in our society. One of the promising ways to proceed would be to offer sample sets of questions that parents can pose to their children about the reading they have done and ask that others be generated by parents. Children can then become involved in discussions with their parents about what has been learned as well as about the kinds of questions that are appropriate. Parents, in turn, would come to understand better the kind of learning their children have managed from the text, and how they might become more helpful. If the involvement of the family is openly avowed as a goal of school learning, certain kinds of reading assignments can be set up as joint projects with parents.

There may also be some interesting features of text in social context to pursue from the technical-scientific boarding school tradition. The first of these concerns the teacher as professional. Secular school systems would have great difficulty creating by recruitment and ordination a corps of dedicated celibates. It ought to be possible, however, to recognize in a variety of ways the importance of the teacher to the learning process, and to foster a sense of his importance both for the publisher and the student. "Teacher-proof" curricula seem to be yielding to teacher-involved programs. But more needs to be done to support the teacher's self-image as a professional. That kind of support may require workshops and seminars for the adopters of text, and not just the provision of auxiliary aids to help in the use of a textbook.

If text in the scientific areas was appreciated by students and teachers alike, it was because of its relevance to problems of practical concern. Relevance need not be limited to mechanics and the problems of engineering, as it tended to be in the technical texts of seventeenth- and eighteenth-century France. The cultural and social needs of our people must also be addressed. One of the existing problems in all areas of knowledge is to establish, with integrity, the forms and nature of that relevance. This, too, is a challenge for the publisher. Success would contribute greatly to the creation of an effective nexus of text, reader, and social community, in which the book can play once more a central role in the diffusion of knowledge and the elevation of the public's capacity to both read and understand.

Cultures and Textbooks

Sylvia Scribner

Sylvia Scribner of the U.S. National Institute of Education was asked to comment on the papers by Walker and Resnick in the context of her own work.

George Steiner, speaking about books in general, lamented that we had more histories of texts than we could use but no history of reading. It was apparent to Steiner that a text is more than frozen language and reading more than a changeless set of skills. Different modes of reading have evolved historically, each dependent upon a particular social environment. Understanding a historical text, therefore, requires some knowledge of the kind of reading activity that constituted it as a living document in its own time.

This proposition—that text and reader are inseparable—applies to contemporary as well as historical texts and with extra force to the specialized class of texts we are considering here as textbooks. The papers by Walker and Resnick imaginatively explore the implications of this proposition for educational practices. Both urge us to move beyond the conventional preoccupation with the textbook as an entity-in-itself. Both present the textbook as one element in a socially organized instructional system and argue that it cannot be fully understood outside of that system. Walker concentrates on the textbook-in-use in the classsroom. He reminds us that after years of classroom research, we know very little about what teachers and students actually do with textbooks. In spite of a large body of evidence demonstrating that different kinds of reading activities have different outcomes for what is learned in texts, implications of this research for evaluating textbooks have not been developed. More challenging is Walker's turn-of-the-wheel. If the way teachers and students read thetextbook helps to determine what kind of a learning device it is, it might also be the case that different kinds of textbooks call out different reading activities. The functional concept of a textbook that Walker advances suggests that research on textbooks and research on reading should be coordinated. Studies of "reading-as-a-general process" might be usefully supplemented by studies of different kinds of reading organized around different kinds of school texts.

Resnick, one of the few scholars responding to the challenge to create a history of reading, carries the functional approach still further. The instructional system in which the textbook and reader function is embedded in a larger social order which shapes the purposes and practice of instruction. Resnick's contrasting case studies bring to the fore the role of ideological and social factors in determining what books will become textbooks in the first place and what kind of reader-book interactions will be considered useful and appropriate. For Resnick, the effective nexus for educational practice is not merely reader and text, but reader, text, and social community.

The conclusion emerging from historical investigations—that the social community is a necessary unit of analysis in studies of textbook use—warrants closer attention. In most research on educational practices, social purposes and social processes operate as unexamined background. Until a comparative perspective forces us to look at education in other times and places, we may overlook the pervasive influence which social context exerts on uses of text. Anthropological research supports the historical evidence that Resnick presented of the great diversity of ways in which social communities organize reading around educational texts, and the intimate relationship between forms of reading

and educational objectives. In the time remaining, I would like to draw on my experiences in a traditional West African society to support and extend Resnick's analysis.

My comments are drawn from observations and research among the Vai people of Liberia, West Africa. The Vai, a traditional subsistence farming people, are famous for their indigenous script—a syllabary taught in the villages by ordinary folk, outside of any institutional setting. Arabic literacy, promoted by Qur'anic schools, and English literacy, taught in Western-style schools are also practiced among the Vai, allowing us to make many comparisons of reading and writing activities across texts and settings.

As a first indication of variability in textbook use among the Vai, we can consider the question of how knowledge transmitted by various texts is perceived. Walker points out that a defining feature of a textbook is that it transmits authoritative knowledge. Yet what stands as authoritative in the textbooks circulating among the Vai often cannot be taken for granted. This is especially true of English School textbooks. It seems self-evident that a history of Liberia written from the point of view of the governing Americo-Liberian group may be authoritative in schools in the capital city of Monrovia but not in village schools in Vai country. What about science books, which most U.S. educators would consider "objectively" authoritative? Curiously enough, these may be among the most problematic texts for Vai and other African students. Traditional beliefs about causality and natural phenomena are often at such variance with their representation in science books that it is not clear whether students accept the validity of the text at all. They may learn what the book says for recitation or test purposes but not accept it as true knowledge about the world.

With respect to materials in the indigenous Vai script, it is interesting to observe that in spite of the variety of different kinds of materials composed in the script, we could find none that functioned as a textbook. Each person's handwritten narrative, whether a historical chronicle or book of advice, vies with others as the wiser or truer account. There is no collection of written documents which is the privileged source of knowledge with respect to Vai history and culture, or, for that matter, with respect to the script itself. A syllabary prepared by Vai script scholars at the University of Liberia some years ago, intended to serve as a definitive guide to correct use of the Vai script, never fulfilled this purpose—in spite of the fact that respected Vai leaders were members of the authorship group.

To the variability in texts, we can add variability in ways in which readers interact with texts. At one extreme, "reading" is rote memorization. In Muslim belief as found among Vai people, part of the process of becoming a holy person is to make Allah's word part of oneself—literally to take the Qur'an into oneself. One takes the book in by memorizing it. Memorization is devoted not only to retention of the material but to preservation of the textual language itself, exactly as written. Oral recitation and methods of instruction are geared toward promoting this ingestion of text. Teachers test by asking boys to recite the verses they have learned. In some cases, young men after seven or eight years of arduous study succeed in committing all the verses of the Qur'an to memory without having acquired any understanding of the Arabic language or being able to read any Arabic text with comprehension.

In the early grades of English school in the villages, children are sent home to learn pages that they have laboriously copied into their notebooks from a text written on the blackboard by their teachers (there are rarely textbooks available for individual student use). Reading for retention is stressed in this setting as well, but the emphasis now is not on the literal wording of the passage but on the facts the text presents. The next day, students will be quizzed with questions which can be answered by retrieving information from the text. Later some who go on to higher grades will complain to their teachers if test questions require knowledge that was not explicitly given in the assigned text.

In contrast, reading Vai script involves constructive efforts after meaning from the very beginning. The script is learned rapidly, within a six week to two month period, and the teacher's test of the student's proficiency is an assignment to read a letter which he prepared and to compose one in reply. The script is primarily used for pragmatic purposes—keeping business records, commercial cor-

respondence, keeping up with kin, making arrangements for funerals and organizing other events. Since the script has not been standardized and exists only in personal handwritten form, it occasionally takes on a social character as text. Reading, therefore, sometimes takes on a social character as other literate men in the village may be pressed into service to help work out a correct interpretation. When several Vai script literates get together around a letter or other piece of text, they sometimes function as a critics circle, exchanging opinions on the level of skill the writer displayed and on his ability to use the Vai language correctly.

I do not want to overstate the case. Most literacy activities among the Vai are not geared toward the application of skills to unfamiliar contexts or reading for learning the new. My reason for describing the variety of texts and reading activities conducted with regard to them is once again to highlight diversity. Considering all three scripts, only 20 percent of the population is literate among the Vai, the range of technical activities is limited in this society yet individual motivations for reading and social purposes served by it are many, complex, and ceaselessly changing. The anthropological perspective supplements the historical perspective in emphasizing the co-occurrence of different reader-text models within any given society at any one time. Certainly in a society such as ours, characterized by a multicultural population among whom new social purposes are constantly elaborated, we will find a much broader range of practices around texts and textbooks. As we gain a fuller understanding of the cultural supports sustaining different forms of reader-text interactions, we may find new ways of using textbooks in the classroom that will increase their educational effectiveness.

About Publishers, Teachers, and Reading Achievement

Shirley A. Jackson

Shirley A. Jackson is acting director of the Right to Read Program, U.S. Office of Education.

According to statistics supplied by the National Center of Educational Statistics, in 1910 only 15 percent of the nation's fourteen-to-seventeen-year-olds were in school, in 1943, only 64 percent, but 95 percent of those youths are in school today. Those who would have been dropouts or illiterate in an earlier age are sitting in our classrooms today and for the most part we have geared up to meet their literacy needs. Many more people now go on to many more kinds of higher education. In 1910 there were 52,300 students in 951 colleges and universities, but by 1940 there were 1.5 million in 1,700 colleges. This year there will be 12 million in 3,095 junior, community, technical and military colleges and universities, public and private. That excludes the estimated 4 million non-credit students or those taking college-level courses at secondary school, churches, their homes, community centers, or in senior citizen centers.

But in spite of how well we are doing in extending education to more and more persons, the National Assessment of Educational Progress reports that 13 percent of the seventeen-year-old school youngsters still are not reading well enough to function successfully in our society. Forty-seven percent of urban black youngsters are in this category as well as many Hispanics. That is the concern of the U. S. Office of Education's Right to Read/Basic Skills program—to find successful ways to address the needs of people not learning to read.

Last week I attended the International Reading Association convention in Atlanta. As I visited the publishers' exhibits, my thoughts were, if attractive materials could accomplish the task of teaching all children to read, there would be no children who cannot read. My commendations to publishers: the materials are plentiful and attractive. Obviously, I cannot attest to the quality of the materials at only a glance and quick examination, but in quantity and appeal they are winners. However, as some of us knew even before the USOE First Grade Studies, Harvard Carnegie Studies, and John Downing's fourteen nation studies, the publishers' materials are only as effective or ineffective as the teacher and his or her instructional system. Materials alone do not teach children to read. A materials effectiveness is highly dependent on its use by a teacher. It is the particular teacher working with Ginn's or Houghton Mifflin's materials in his or her own instructional context and that resultant teacher-pupil interaction that ultimately can make the difference in pupil achievement in reading.

Therefore, major efforts to promote reading achievement must target at impacting the quality and intensity of that teacher-pupil instructional context and interaction.

Even so, the EPIE Institute's "National Survey and Assessment of Instructional Materials (NSAIM)" (1976) indicates that 95 percent of the classroom instruction and 90 percent of the homework time of the children in this nation are structured by materials. Davis Frimer and Kleinfeldter (1977) validate these findings, saying that they found not 95 percent but 98 percent of instruction was from materials, not teachers. My guess is that the two major means of instruction, materials and teachers, are mutually interdependent and that the way the teacher introduces and reinforces the materials accounts for the major differences in instructional effectiveness. Maybe that is where the next big study should be, that is, to determine which are the best and the least ef-

fective methods of introducing materials to students. There probably should be more exploration in this area by publishers during their field testing of materials so that the teacher's guide more emphatically addresses best ways to use the materials, calling attention also to the least effective ways to use materials. Publishers have an awesome and key responsibility relative to improving basic skills instruction through their materials. Just think, 95–98 percent of the instructional time of students is spent on materials; amazing! This means that if we indeed want to change the way teachers operate, we are probably talking about changing the ways teachers introduce, use, and reinforce the materials that they have selected, whatever those might be.

As much as I love to talk about the Right to Read/Basic Skills Program and how it is addressing literacy, today I will not do so. Instead, I would like to address three current issues that I perceive as inhibitors to reading improvement that publishers could address with teachers. For each issue, I would also like to pose several pertinent questions. I hasten to add that I do not have the answers to these questions—the answers must be proposed by each publishing company in relation to their instructional and service philosophies and policies.

ISSUE I: *Coordination of Assessment Mandates and Use of Instructional Materials to Improve Achievement*.

The greatest challenge currently facing materials dependent teachers now is how to develop an effective system for coordinating and integrating their assessment mandates and instructional materials into an effective instructional program that will meet student achievement mandates.

(1) What are the best ways to coordinate state, district, and/or local standards and assessment tools with publisher's scope and sequences of skills and assessment tools?

(2) How should classroom instructional activities from textbook materials be designed by teachers to insure that students spending 95–98 percent of their instructional time in those materials will pass mandated assessments?

(3) What is the publisher's role and responsibility in assisting teachers/school districts in making the match between assessment mandates and instructional materials?

ISSUE II: *Selection of the Best Instructional Methods, Approaches and Systems to Use with Specific Materials and Students*.

Most teachers have probably had a three-hour course in reading and language arts. They have been summarily introduced to many methods and approaches in bits and pieces. This really does not prepare them to understand the relationship of a publisher's scope and sequence of skills, concepts, methods, approaches, and activities that are effectively integrated in a system designed to develop mastery of the reading skills and processes systematically presented in a textbook series. This is probably why many teachers are measuring success by coverage of pages rather than the mastery of skills and concepts. Teachers need inservice training, especially demonstrations, in the best ways of presenting and reinforcing materials. They need to know the best instructional methods, approaches, and systems to use with specific materials and students.

Some twenty-five publishers produce basal readers, employing every known method of teaching reading. They all can work if used appropriately by the teacher. However, all of the money spent in research departments and field tests on development of the best instructional sequence, methods, and approaches is for naught if teachers do not understand the best use of the instructional system devised by a particular company. It only means they will not use the programs as designed and will simply say, "I tried the materials and they do not work."

(1) What is the role and responsibility of the publisher in insuring that the materials sold to a teacher are used as designed for maximum instructional effectiveness?

(2) What is the publisher's responsibility for actually improving instruction and achievement in a school or district in which he has sold materials? Should there be automatic services embedded in the cost of the materials that the purchaser is entitled to when he buys materials, that will insure that the materials will work as designed?

(3) What is the responsibility of publishers to "market" programs that are proven effective for children even though teachers may not enjoy using them because "they're too much work" or beyond the present understanding of the teacher? Do publishers

have any responsibility to learners? What?

(4) All publishers have marketing departments. Can marketing departments devise campaigns to "sell" the use of effective instructional systems and ideas to teachers who might otherwise resist proper use of such ideas or systems?

(5) What is the publisher's responsibility for assisting teachers in understanding and utilizing appropriate strategies relative to time on task, reinforcement, motivation, content density, and sequencing of concepts, content, and skills necessary to the effective use of the materials?

(6) How should publishers evaluate the success of their materials in improving the reading skills of the students in their programs? (Sales volume? Service? Test scores? Teacher satisfaction? Student satisfaction?)

ISSUE III: *Provision of Materials to Special Populations*

There are several areas where it is difficult to get appropriate instructional materials such as materials designed to teach beginning reading to adults, materials for the handicapped population, and bilingual education materials. School districts, states, teachers, and the Federal government are all busy developing materials in these difficult areas. Many potentially good materials are sitting on somebody's shelf or in somebody's final report. These materials could be dusted off and put in form for broad-based dissemination by publishers. The research and development, a costly part of product development, has already been completed with tax dollars. Only the marketing strategy, field-testing, and dissemination remains.

(1) What should be the role and relationship of publishers in the search for development of materials in areas where there is not an expanded market?

(2) What should be the role and relationship of publishers to local, state, and government efforts to develop such materials?

(3) What is the most effective materials development process that insures a product that improves the achievement of special populations?

The most important questions that must be addressed by publishers and teachers are the same and must be addressed by both groups in concert. What ultimately do we want students to be able to do and know? What must they be exposed to in order for them to know and do these things? What is the most effective teaching strategy for accomplishing and evaluating the knowledge and skills identified? And what are the most effective materials that we can use to teach these skills? Using effective materials is critical if we are to improve the reading achievement of our population. The challenge for publishers and teachers is to make materials effective learning tools for students because 95 to 98 percent of any student's instructional time is spent on what publishers write. What publishers write determines whether or not a youngster is going to be able to exercise her or his Right to Read.

The Textbook in the Elementary Curriculum

The Basal Readers

Isabel L. Beck

Isabel L. Beck of the University of Pittsburgh presented a detailed paper that is excerpted below. Introductory material and two summaries, "Summing Up Decoding Issues" and "Summing Up Comprehension Issues," are included. Two major sections of her paper are omitted: background information "on approaches to beginning reading that have been important to the specification of instructional strategies provided in reading programs" and an outline of several issues that are "potentially problematic to comprehension in current basal readers," particularly early textual materials that children are required to read, picture characteristics, and the role of previous knowledge.

Basal readers are a prevalent topic in the educational reading literature. This literature points out, among other things, that the pattern of resources in the basals is time-honored; the idea of graded readers with controlled vocabulary dates back to the McGuffey Readers of the 1830s. In addition, it is well documented that basal readers are the major instructional resources used to teach reading in contemporary elementary schools. We also know that they provide not only the content of reading, but also, to a large degree, the methods of instruction. There is strong evidence that teachers do rely on the instructional strategies recommended by the programs. Basal readers are also big business, as evidenced by intense marketing and competition for sales.

Since much evidence indicates that the basals represent the state of the art of reading instruction, they are a natural focus for the study of elementary textbooks. Information is readily available about the surface features of the basals. Virtually every methods textbook used for the training of preservice and inservice teachers devotes several chapters to basal readers. Further, each publisher provides printed descriptions of the nature of instruction, lists of objectives, and scope and sequence charts. However, the characteristics of basals that emerge from methods textbooks and publishers' materials tend to be general structural descriptions.

My own orientation, in contrast, has been to try to pierce the general descriptions to determine specific aspects of basals' reading instruction. I have attempted to turn the basals inside out to focus on some nitty-gritty details of the reading instruction they contain. I have spent the last several years studying commercial reading programs at such a micro level of detail. My purpose in studying commercial programs has been to examine specific instructional practices at a level of detail that allows for discrimination among practices and their assessment on the basis of theory, research, logical analysis, and teaching experience. I am particularly interested in discerning the types of practices that would be most effective with poor-prognosis children, that is, those children who do not learn to read with ease.

The issues I will discuss represent some results from two research endeavors. The first endeavor, now completed, involved looking at instruction provided for the acquisition of the print-to-speech code. Two papers, one done in collaboration with Karen Block, the other with Ellen McCaslin, lay out the results of this work in more detail than can be specified here. The second endeavor, presently underway in collaboration with Moddy McKeown and Ellen McCaslin, involves scrutinizing reading instruction aimed at everything *but* code-breaking, that is, the great tar pit of comprehension. A preliminary working paper examines instructional elements that may contribute to comprehension, such as the nature of the printed text, characteristics of pictures, and background knowledge needed to understand a text.

From the study of basals, it seems clear that the distinctions between the code programs and the basal programs analyzed by Beck and McCaslin in 1978 remain virtually the same as those proposed by Jeanne Chall a decade earlier in *Learning to Read. The Great Debate* (1967). Chall suggested that the major characteristics of a code program were control of words on some kind of spelling regularity or letter-sound constraints and dir[illegible] teaching of letter-sound correspondences. On the first issue, it is clear that the basal programs remain distinct from the code programs; they neither restrict their vocabulary corpuses on the basis of spelling regularity nor constrain them on the basis of the letter-sounds introduced in their phonics components. It is the second point, the direct teaching of letter-sound correspondences, that supposedly has provided the basis for the view that the basals have changed. They do indeed teach phonics earlier and more systematically than they did in their earlier editions. It is highly questionable, however, whether their brand of phonics will succeed in helping the poorer-prognosis child acquire letter-sound correspondences. The basals' brand of phonics tells children about the grapheme-phoneme mapping of the language (e.g., "the *e* in *get* is the short sound of *e*"); it does not arrange conditions for its practical application. Indeed, in the *63rd Yearbook of the National Society of Education* (1964), J. B. Carroll noted:

> With regard to the actual use of phonics cues, the goal is not to have the learner acquire formally stated rules concerning letter-sound correspondences, but to teach habits of responding to letters and letter-combinations (p. 343).

Since the brand of phonics offered in the basals requires precisely those phonemic analysis abilities not possessed by children most at risk, poorer-prognosis children are still receiving reading instruction essentially through a whole-word approach. The claim that the distinctions between meaning- and code-emphasis approaches have become so blurred as to be insignificant seems invalid in light of this recent work.

The issues raised in the previous section focused on the oldest and most controversial aspect of reading instructional concern, i.e., the best way to help children learn the print-to-speech code. As the previous discussion noted, there remain differences in *how* programs arrange conditions for doing so. But reading programs are enormously complex and can be described, analyzed, and compared along a large number of structural and instructional dimensions beyond those that relate to the acquisition of word attack skills.

In the remainder of this paper, I want to raise some issues that relate to comprehension which is, of course, the sine qua non of reading.

The view of reading comprehension that underlies our work is drawn from the theories of [researchers] who share the assumption that reading comprehension is a specific case of language comprehension. This position holds that, apart from decoding skill, reading comprehension is dependent upon linguistic, conceptual, cognitive, and general knowledge abilities that are similar to those required for aural language comprehension. These notions have led us to consider the reader's previous knowledge about the content being read as a critical factor in facilitating or inhibiting comprehension.

Also underlying the work currently in progress are some notions about other conditions that should facilitate comprehension of a specific text. Here we acknowledge that new knowledge is more readily acquired by oral/aural language experiences until children are able to comprehend as efficiently by reading as they are by listening, which appears to occur around the seventh or eighth grade. Hence, an oracy to literacy sequence is inherent in our notions about comprehension instruction.

The field in general and the two programs we have studied in detail view comprehension instruction as occurring through the directed reading lesson (a series of events surrounding a textual selection from the children's reader), and the skills sequences (exercises aimed at promoting what are considered specific "skills" such as finding the main idea or following directions). At present we have been focusing our attention on the directed reading lesson because it is the most traditional format and because it consumes a major portion of the instructional time devoted to reading, judged by the amount of material available and by teachers' own reports about how they spend their reading instructional time. The

implicit objective of a directed reading lesson is to provide students with meaningful encounters with text from which they can build habits of comprehending. The typical lesson plan followed by teachers involves preparing for an upcoming selection, having students read the selection, and conducting a period for questions on and discussion of the selection. From examination of these components in randomly selected lessons, we have identified seven issues that may play a role in comprehension of the text at hand.

This discussion has presented exemplars of practices that have been judged as potentially facilitative or inhibitive of comprehension. In contrast to decoding instruction, the differences in comprehension instruction that make certain practices more desirable for certain populations of children are not governed by differences in principle and thus do not represent differences between approaches or programs. Rather, the differences seem indicative of the state of the art in comprehension instruction. Knowledge about comprehension is much less structured and much more abstract than knowledge about decoding. As a result, comprehension instruction is much more intuitive than instruction aimed at acquisition of the print to speech code. Hence, it is less consistent from lesson to lesson within a given program. Thus, in looking for the best comprehension instruction to fill the needs of certain children, one cannot simply choose a program most suited to those needs. Consideration and adjustment of each individual lesson is necessary.

I would recommend to developers that each lesson be carefully contructed to maximize the chances for comprehension to occur. Other considerations such as providing attractive artwork or introducing children to good literature have value, but should not compete with a lesson's instructional intent.

In closing, let me offer a few remarks about what I see as the value of turning the basals inside out to examine the instruction within. First, such detailed analyses make sense because commercial reading programs represent the state of the art in reading instruction, as well as provide reading content. Analyses at the level of detail I have described help to identify and define "good" and "poor" practices, allow recommendations of specific practices for certain populations of children, and alert practitioners to the implications of certain practices offered in the materials they use. My hope is that the results of these analyses may also be helpful to program developers in their constant striving to improve their products.

Teaching with Basal Readers

Helen M. Popp

In responding to Isabel Beck's paper on basal readers, Helen M. Popp of Harvard University discussed a wide range of subjects, including characteristics of decoding instruction, flow of instruction and initial content, the pedagogy for teaching letter/sound correspondences, comprehension instruction, and syntactic structures and story schema. Excerpts from her introductory and concluding comments follow.

As Isabel Beck indicates, basal readers are *the* major instructional resource providing both the content of reading for young children and the methods by which they are instructed. Although teachers vary the instructional suggestions according to their own biases and experiences, the methodology set out in the basal reading programs has a great influence on what is done. I find it most laudable that Beck has looked directly at the basal readers themselves and the recommended teaching procedures, rather that at scope and sequence charts, publishers' philosophies, or statements about their purpose. In so doing, she has identified a number of aspects that are important to the development and evaluation of basal reading materials. She has also found important differences in the instructional materials and recommended practices. Interest from participants at this conference, from researchers, from teachers, and from publishing houses generally should reward these very thoughtful efforts.

I assume that publishers respond to what they have determined most teachers want. Many of the people whom I have been privileged to know in publishing companies also expend a great deal of effort in gleaning information to aid them in promoting, in discovering, and in developing basal reading materials from which children are most likely to learn. One dilemma they must face that I have heard mentioned, is that it is not economically feasable to produce programs designed to meet primarily the needs of the poor-prognosis children. Thus, in a given program, the texts are designed to be the same for all children, and processes in using these texts are sometimes structured differently for different levels of expected proficiency (i.e., learning activities vary). Different teacher behaviors as well as different child behaviors are suggested. The basal reader, therefore, has a stronger relationship to educational processes in our contemporary society than we might at first realize. The needs of all kinds of children as learners are being studied from various perspectives: motivational, emotional, intellectual, and social, to name a few. Can publishers be expected to respond to this range of concerns? And how is their response limited by parameters of texts being influenced so strongly by special interest groups concerned with the aged, with various racial and ethnic groups, with the handicapped, with "junk food," etc.?

Certainly these and other questions could be studied and areas of concern similar to those discussed by Beck might be studied in a setting similar to that suggested by Alexander J. Burke in his 1978 paper at an Association of American Publishers meeting at which he urged a center for the educational book. In such a center one could "learn about the effective role of the educational book."

There are several large areas of research, several quite different aspects of instruction that could influence program development. (1) One could look at the textbooks themselves, the children's materials, and ask questions about the content and about the design of composition of those materials such as Beck has begun to do. (2) Or one could examine

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the teachers' manuals and note such differences as: (a) the recommended time allotments for reading, (b) recommended groupings, (c) the degree of specificity in the teachers' manuals, (d) activities suggested and whether they precede or follow the story reading, (e) any one of a set of parameters influencing instruction referred to by E. Z. Rothkopf [in *The Psychology of Teaching Methods* (1976)] as dimensions that meet instructional goals. (3) Verification studies on total programs have been undertaken by publishers and the kinds of data that are available on a few programs are informative, however, I think we need to reemphasize the right that teachers, administrators, and students have to know about how well a program worked in a defined population. Problems in this last category are many. The differences in implementation from classroom to classroom are simply enormous and the differences are not necessarily related to whether or not a program was designed for great flexibility.

In 1977 EPIE examined "instructional design constructs" of some of the major reading programs. Their evaluations are based on an analysis of the materials and are, for the most part, expressed in the word of the publishers taken from stated philosophies, descriptions, or explanations to teachers. What Beck is doing goes beyond this; she looks at the "nitty gritty" in a way that permits her to say that such and such a skill *is* covered, when it is covered, and how it is covered. Her approach allows for an assessment of learning activities and the manner suggested for their implementation. Other basals should be analyzed along these same dimensions for beginning reading. Other issues should be examined for the intermediate grades. While such activity may seem to some a peculiar attention to detail, a summary of these kinds of textbook differences would be very valuable to teachers or others who are considering the adoption of a new or different reading program and to researchers as well. Individual teachers could locate a program that is comparable with his or her own preferred teaching style or one that would meet the needs of specific students. Researchers could investigate important differences between instructional procedures. University teachers could use the information in training teachers to evaluate basal textbooks in reading. And program developers would be more aware of the range of important variables and how they are managed in the various basal series.

Yes, I consider Beck's work thoughtful, informative and important. Such work should influence the development and implementation of materials that constitute the primary means by which millions of children learn to read and by which they gain practice in skills. As such, the work is relevant for fostering children's pursuit of academic concerns, for helping them to function in society, and for enabling them to enjoy the world of books.

Elementary Mathematics Textbooks

Andrew C. Porter

Andrew Porter and his colleagues at the Institute for Research on Teaching in the College of Education at Michigan State University conducted a study of elementary school mathematics textbooks that was presented at the conference by Dr. Porter. The other contributors to the study were Therese M. Kuhs, Donald J. Freeman, Robert E. Floden, Lucy B. Knappen, William H. Schmidt, and John R. Schwille. The introduction and a summary of the conclusions of the study are presented below.

When analyzing curricula it is useful to differentiate between content of instruction (*what* is taught) and instructional methods (*how* something is taught). Until recently, however, studies of the impact of teaching on student performance have concentrated primarily on method, neglecting content. The central role of content analysis in several recent investigations illustrates a growing awareness of the need to consider content as well as instructional strategy in research on teaching.

This increased interest in the content of instruction is founded on the belief that content is related to student performance. Those studies that have attempted to link content and achievement have typically supported this belief. According to the National Longitudinal Study of Mathematical Abilities, "student achievement, to a substantial extent, mirrors the content treated in the textbook: Students are more likely to learn what they have been taught than something else." It is, therefore, somewhat surprising that the issue of content selection has rarely been considered in research on teaching. Despite increased interest in research on teacher decision making, for example, none of the published studies deal with factors that influence teacher decisions concerning how the material covered causes variation in student achievement. Therefore it has become important to find out what factors influence content selection in the first place. The content analyses described in our study are part of a series of interrelated studies attempting to delineate factors that influence teachers' content selections conducted by the Institute for Research on Teaching, College of Education, Michigan State University.

Fourth-grade mathematics was selected as the initial context of our investigations for several reasons. Mathematics is generally considered a basic skill that all children in elementary school should study. Also, it seems to be a subject that is primarily learned in school, and one for which precise and careful descriptions of content variations are possible. The focus on fourth-grade allows for substantial variance in what might be taught, both because of the range of topics which might be offered to students who are progressing at an average rate and because of the need to vary topics in response to differences in student readiness.

The potential impact of textbooks on teacher's decisions about "what to teach" is suggested by the results of two nationwide surveys conducted in the last decade. Over 75 percent of the teachers in a survey sponsored by the National Advisory Committee on Mathematics Education (NACOME) reported using a single textbook predominantly in the classroom, and 53 percent of the teachers reported that they followed the texts closely. Since the content of mathematics instruction in a significant number of American classrooms may be determined primarily by the content of textbooks, the implied curriculum of these texts merits close consideration.

Our study consists of a content analysis of three widely-used textbooks of fourth-grade mathematics:

1. *Mathematics in Our World*, Ad-

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dison-Wesley Publishing Co., 1978

2. *Mathematics*, Houghton-Mifflin Co., 1978
3. *Mathematics Around Us*, Scott-Foresman & Co., 1978

These three textbooks are similar in format and organization. Lessons identified in each book include three distinct components: (1) a stated objective, (2) an instructional activity directed by the teacher, and (3) student exercises. A complete description of the content of each text should include an analysis of each of these components as well as a description of the various enrichment activities provided as optional assignments in many of the lessons. However, we elected to focus solely on the student exercises for the preliminary work. This decision was based on practical considerations, as well as on the results of the NACOME survey, which suggests the majority of teachers rely primarily on this segment of a textbook. Thus variation in the content of student exercises is more apt to promote variation in the content of classroom instruction than differences in the other two portions of a lesson.

The data summarized in our study provide evidence for each of the following general conclusions:

1. *A "core curriculum" in fourth grade mathematics does exist.*
   As reflected in widely used textbooks, this curriculum can best be described as having primary concern for those computational skill areas that are commonly associated with the current "back to basics" and "minimal competency" trends. Multiplication or division of whole numbers and basic number facts are particularly strong components of the core curriculum of fourth-grade mathematics textbooks.
2. *Variation in content covered in different textbooks could result in variation in content taught in the classroom.*
   Our evidence suggests that textbooks vary in their treatment of both general and specific topics as defined by a taxonomy we devised.
   Our evidence suggests that more than half of the specific topics identified in the analysis of all three books were covered in only one text. These "optional curriculum" topics are apt to represent decision points that may result in variation in the content of classroom instruction.
   There is some evidence that textbooks even vary in their treatment of "core" topics. Although these differences are not apt to influence teachers' selection of classroom content, they may result in differences in the extent to which core topics are emphasized in the classroom.
3. *In general, content decisions that are left to the teacher require a comparatively high level of expertise in mathematics.*
   The "core curriculum" described in this study is concentrated almost exclusively in the area of skills. In view of the emphasis placed on skills in all three textbooks, teachers may feel compelled to teach them.
   The "optional curriculum" described in this study is focused in the area of conceptual understanding. Teachers who are not bound to a single textbook may exercise considerable latitude in deciding whether or not to cover optional topics in the classroom.
   It is generally agreed that understanding the "whys" of mathematics demands a higher level of expertise than a straightforward performance of skills. Thus, content decisions which are left to the teacher may be those that teachers are least prepared to make.
4. *Differences in classroom content are almost certain to occur among textbook-bound teachers who use different books.*
   Evidence from the literature suggests that over 50 percent of all elementary school teachers are textbook-bound.
   Evidence provided by this study suggests that over 50 percent of specific topics treated in three widely used fourth-grade mathematics textbooks are covered in only one of the three books studied.

These findings describe a core curriculum for fourth-grade mathematics. However, the topic options that are available through the use of different texts suggest that even in those classrooms where teachers follow the text closely, the content of instruction will vary dramatically when different books are used.

Teaching with Elementary Mathematics Textbooks

Edward Esty

Edward Esty first noted that his remarks are his own comments and do not reflect the position of the National Institute of Education. His comments were made in response to the paper by Andrew Porter and colleagues.

I think Andrew Porter's paper is very good and I applaud the procedure and care with which he has looked at the texts he's chosen to study.

Of course, one can disagree with the exact way that he set up his classification system, and maybe I will get a chance to talk about a few of my disagreements. But the first comment I would like to make is that in reading Porter's paper the flavor of the books that he studied and books like them did not come across. I am always struck by the real beauty of these textbooks. The graphics are extraordinary, the photographs in some of them are absolutely first rate. And the layout is clean and clear and easy to follow.

One thing I find in common in various mathematics textbooks is that the procedure of telling—of showing an example and then having kids do exercises—is similar to that Porter talked about. My own experience thus confirms some of his findings. Porter also talks in his paper about what he calls the textbook-bound teacher . . . the teacher who follows the textbook very closely and does not deviate from the text material.

I would like to suggest that there is a more realistic way of defining the textbook-bound teacher. And that is as the teacher who uses only the text but does not necessarily cover the entire text. I think this is an important distinction.

Just because something appears in a textbook does not necessarily mean that even the textbook-bound teacher will decide to use it. She or he may skip over it because she or he feels it is unimportant or it occurs so late in the textbook that it is never reached. And I think if you look at where some of the topics appear in some of these textbooks, you will see, for example, that the topics of probability, the introduction to negative integers and so on, very often appear at the end of the text. It is very possible that teachers never get that far. There is always a sense of pressure in the elementary school about finishing the text. And it seems to me that nobody, or very few people, actually do finish the text. So there may be important segments of the content that even the textbook-bound teacher does not reach.

A second comment regards Porter's discussion of applications. He has broken out skill application from the skills themselves. He uses a single system for coding both texts and tests. I think that may be a mistake for the following reason. One of the textbooks I reviewed showed a group of division problems written out in numbers and then a series of so-called "word problems" applications. I do not think that is correct. When a child has gone through mathematics education for four years he or she knows that when you have number problems and then you come to these word problems, you are going to be doing exactly what you have been doing with numbers, but now with word problems. So there is no reason to read the problems; there is no reason to decide what operations to do. You just pick out the numbers and do the division or addition or whatever. Examples from textbooks illustrate that that works. It really works most of the time.

This is different from getting this sort of item in a test where you do not have context to help you decide what to do. So I think there is a higher

order rule that a lot of children have learned by the time they are in fourth grade about how to deal with problems in texts.

As another observation, I think that anybody who has spent time looking at mathematics textbooks would have predicted pretty much what Porter has reported.

I would suggest, as a next step, that he look at something that is really different from the texts at which he has looked. I am thinking of programs such as Romberg's "Developing Mathematical Processes" and Wirtz's materials or Bert Kauffman's "Comprehensive School Mathematics Program." I think it would be very difficult to put the content of Kauffman's program into Porter's scheme because most of it would be coded as "other."

My last comment is that each of Porter's texts that he has examined has the word "Mathematics" in the title. My question when I go to National Council of Teachers of Mathematics meetings is, What is this mathematics? This is the discipline, this is the science, this is the field of inquiry that has attracted some of the greatest minds that the human race has ever produced. This is Archimedes, this is Newton . . . I'm skipping over a great many of them. It is an extremely active field today. It is being worked on by geniuses at the present moment.

Now, unfortunately, I can find in these texts only a very, very slight trace of mathematics as I know it. I ask myself, where is the inquiry, where is the sense of adventure, where, really, is the content? After all, this drill on arithmetic that Porter has so ably documented is not what mathematics is all about.

So I ask myself, where is the mathematics? I do not find it in these texts. The next question is, Why isn't it there and what can we do about it? The first thing that one might say is that publishers are at fault. They are the ones who are producing these books, and they should be doing a better job. I don't think that's the answer at all. I think it comes back to several of the things that have been mentioned already this afternoon, that we need to educate the consumers. The consumers, in many cases, are elementary school teachers who have very limited mathematical backgrounds. We need mathematics educators to do a better job of preparing elementary school teachers. We certainly need mathematicians to explain, in terms that people can understand, some of the beauty and excitement of their field.

The Textbook in the Middle, Secondary, and Post-secondary Curriculum

Middle and Secondary School Textbooks

Jeanne S. Chall

Jeanne Chall of Harvard University discussed three areas of concern regarding upper elementary and high school textbooks: research on vocabulary and readability, content and methods of presentation, and the physical form of the textbook, including newer forms (kits, laboratories, workbooks, and single sheets).

It would appear that research on the optimal level of difficulty of textbooks for a class, a group, [and] an individual is still very much needed. This is particularly important since the readability level of materials has been found consistently to influence the reading comprehension of pupils. There is also evidence that the readability level of materials read to children influences their long-term linguistic development. In a 1972 study Carol Chomsky found that elementary school children who were exposed to reading material on a level above their own linguistic development—either through being read to or as a result of their own reading—were more advanced in their language development and in their reading achievement as measured by standardized tests.

Thus, while the use and influence of readability measurement is still great, there has been a change in the interpretation of the findings. The earlier applications of readability formulas concluded that the books were too hard for most of the pupils for whom they were intended. The more recent applications are finding evidence that the books may be too easy. Thus, it appears that educational research as well as a changing population may have influenced the change toward easier books. One wonders whether the current interest in the basic skills as well as in the education of the gifted is not a sign of the growing concern that we may have been underchallenging many of the students.

Before leaving readability measurement, I should like to take up one other issue: whether or not the readability formulas can be used for writing or editing materials for a given grade level. Unfortunately, in spite of many cautions and research evidence, readability formulas have been, and still are, used to write and rewrite materials. A survey of users of the Dale-Chall Formula completed in the late 1950s found the practice quite common in publishing houses. And the proceedings of the 1978 annual meeting of the Association of American Publishers devoted to readability indicates it is still widespread and is being speeded up by the use of computers. Frances FitzGerald in the *New Yorker* series on textbooks (1979) paints a rather unsympathetic picture of this use of readability formulas:

> In the matter of prose style, the editors invariably impose constraints on the writer. The public schools require that all textbooks be adjusted to the standard reading levels for the grades that the books are intended for. The text houses must therefore see to it that all manuscripts follow standard "readability" formulas, which measure the frequency with which difficult words occur and the complexity of the sentence structure. The Dale-Chall formula, for example, gives a list of three thousand "easy" words . . . and a complicated equation between the number of difficult words and the length of the sentences. Since few historians can contrive to write by these rules, the editors usually have to rewrite the final draft. In the process, they may or may not change the essential meaning of the original, but, almost necessarily, they remove all individuality from the writing, homogenizing it so that it is in fact nearly unreadable.

Many teachers report that the essential meaning may in fact be changed. They report that the choppy sentences and the substitutions of "easier" for "harder" words results in sentences that are harder to read and confusing in meaning. I offer one example of vocabulary simplification—from an otherwise excellent high interest-low vocabulary series. Included in one of the books for third grade readers is the following sentence: "Moses was over his people." After some thought, I concluded that what was meant was that "Moses was leader of his people," but that leader was probably not on the word list used. The new sentence was also shorter, thus adding to a lower readability score.

The evidence about content and methods is more difficult to come by than for vocabulary and readability. But here, too, one finds considerable ferment and debate at the present time.

An analysis of recent trends in reading and other curriculum areas shows a considerable change at elementary, secondary, and college levels. Generally, there appear to be changes in both *what* is to be taught (the curriculum) and *how* it is to be taught (methods, materials, and organization). With regard to both *what* and *how* there seems to be a growing concern that a tightening up of requirements and a stressing of essentials is needed. Changes in what to teach and when to teach it are seen in the different curriculum areas. As would be expected, the textbooks are grappling with the same issues.

The teaching of reading went through these changes early. By the late 1960s considerable criticism had accumulated against the methods used to teach beginners how to read. Changes in the textbooks began to occur in the late 1960s. Generally those changes included a heavier stress in the first few grades on teaching decoding (phonics) on using more words, and more difficult ones, at each level.

The concern about writing came later, in the middle 1970s, when everyone seemed to agree that the schools did miserably in the teaching of writing. An analysis of the extent of writing assignments in textbooks revealed a low level of expectation and practice. Generally, the assignments in the textbooks called mostly for underlining, circling, and filling in single words. Few textbook assignments asked students to write a paragraph, story, letter, or theme—not even the grammar and composition textbooks.

In mathematics, a "return" to fundamentals is also evident. But it came somewhat later than in reading. The "New Math" widely favored in the 1960s, with its emphasis on concepts and understanding from the earliest grades, began to be questioned around the middle 1970s. Indeed, the same sort of dissatisfaction with the new math began to be heard, as was heard earlier (1960s) for reading. Too many of the children who were taught New Math couldn't compute, although they seemed to have a good grasp of concepts.

Current trends in science and social studies are not as clear. But these curriculua share similar concerns with each other and with reading and math.

An impressionistic perusal of a recently published fourth grade social studies textbook revealed a beautiful, colorful text resembling the pages of *National Geographic*. But the vastness and range of information was staggering. Is it possible that a fourth grade child could absorb all of this richness? Or is he not expected to absorb it? The introductory material to the teacher, in fact, indicates that the text is designed for the learning of concepts, not facts.

Another content change in textbooks concerns the inclusion and relative space allotted to racial minorities, to women, and to a variety of ethnic groups. Some researchers seem to assume that textbooks should represent people in the same proportion as they are represented in the population. This assumption needs serious thought. Indeed good research on this aspect of content is very much needed. Such research would need to be based firmly in philosophy and ethics, as well as in the methodology of the social sciences.

I should like to conclude with an impressionistic view of the changes over a thirty-five-year period in a sixth grade history textbook that we found in our 1977 *An Analysis of Textbooks in Relation to Declining S.A.T. Scores*. [I] present these impressions to illustrate that while counts of pictures, readability of text, and other such measures may yield important data, textbooks have a total character

that cannot be measured by the separate parts alone.

How did these textbooks change over thirty-five years? Generally, our impressions were that they changed considerably. From relatively small books, straightforward and factual, they became books that resemble a cross between encyclopedias and picture magazines—with illustrations on three out of four pages and a somewhat chatty style.

The earliest book, copyrighted 1935, emphasized information presented in a scholarly manner. In contrast, the more recently published books contain more narrative, more pictures, and full color. Can the sixth grade pupils for whom these books are written sort out the historical facts and interpretations from the pictorial and narrative abundance? Is it possible that a more compact, less generously illustrated, history textbook can contribute more to their knowledge and understanding of history? To their linguistic and cognitive growth? To growth of their reading ability? Could it be that with such textbooks, less may be more?

Textbooks are more potent forces in what and how teachers teach and in what and how children learn than we are ready to admit. Textbooks select for study a content, an emphasis, a method of instruction and learning, and a level of difficulty. This power is held jealously by the government and dominant party of nondemocratic countries. No totalitarian country would chance the consequences of freedom in textbook development and selection. Even the choice of first story in the first reading text must pass the approval of political and educational committees.

But American publishers are not completely free either. They exist in a symbiotic relationship with teachers and schools, with textbook selection committees, with educational researchers and curriculum specialists, and with each other. The constraints and responsibilities of publishers seem even greater when one realizes that textbooks serve as a means for establishing national educational standards for children, teachers, and school districts. Our schools may be locally and state controlled, but our textbooks are written for a national audience. It is for these reasons that I believe textbooks, together with teachers, educational researchers, curriculum specialists, and textbook selection committees can become one of the most powerful forces for the improvement of educational achievement.

Publishers, Social Pressures, and Textbooks

James R. Squire

In reacting to Jeanne Chall's paper, publisher James R. Squire of Ginn and Company emphasized factors that influence the development and use of textbooks. He also referred to papers prepared for the seminar by Isabel Beck and John H. Williamson.

During her extensive discussion of the changing nature of textbooks during the past half century, Jeanne Chall advances a number of generalizations with which few publishers will disagree:

Textbooks have progressively become less difficult over the past fifty years.

Textbooks have now made increased use of art photography and four-color design, although such changes have occurred less because of research than because of sensitivity to customer requirements.

Textbooks reflect the changing mix of social and pedagogical priorities identified by the schools of America.

Textbooks generally reflect, with some time lag, research in instruction and curriculum.

Textbooks are a potent national force since they offer structure, content, and learning experiences which are similar from state to state and district to district.

Together with Frances FitzGerald's recent analysis of the relationship between American social values and the content of social studies textbooks, Chall's discussion paints a portrait of textbooks that seem more uniform and less diversified than most in the industry believe. Isabel Beck, in her analyses of primary level textbooks, is probably more accurate in suggesting that despite surface similarities in format, design, organization, and even readability, basic differences do exist in the strategies and emphases employed by different books and series. Certainly it is possible today for schools to choose between analytic and synthetic phonics, between mathematics programs with or without an emphasis on problem solving, between histories that stress inquiry and those that rely on narrative, between English textbooks that integrate grammar with instructional procedures and those that isolate grammar for separate presentation, between life science programs that present evolution and creationism as theories and those that do not. Indeed in almost all subject disciplines and at almost every instructional level, schools have a greater choice in textbooks than Chall's analyses suggests. That a diversity of such choices can be made available to the nation's schools is a reflection of the competitiveness of our free enterprise system, just as the similarity of the textbooks noted by Chall is a reflection of the present broad consensus among teachers and schools with respect to the instructional tools required for educating boys and girls.

But to understand fully the whys and wherefores of the design, content, and instruction in American textbooks—including those discussed in Chall's paper—requires a clear understanding of four factors that influence the development and use of textbooks.

1. *Textbooks are designed to respond to the requirements of schools.* Publishers do not write curriculum nor do they attempt large scale curricular reform. Decisions with respect to curriculum are made by local and state educational authorities, responding to community needs, local and national priorities, and continually revised interpretations of scholarship, research, and development. Publishers respond to changing requirements by providing new or re-

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vised textbooks that reflect changing priorities, seeking improved content or instructional features that will provide a market "edge" over a dozen to two dozen competitive programs.

Rarely indeed will publishers develop instructional materials which require changes in teacher behavior markedly different from classroom behavior presently in place, except as plans are developed in advance to provide for extensive retraining of teachers at the time of installation. Indeed the lack of acceptance of the majority of new instruction programs developed by the Office of Education (USOE), the National Institute of Education (NIE), and the regional laboratories during the sixties and early seventies resulted in large measure from the inability of publishers, schools, and the regional laboratories to provide needed installation support and the subsequent rejection of instructional materials that require such training by teachers themselves.

If then today's textbooks do not seem as challenging as those developed years ago, if the readability and vocabulary levels sometimes seem unduly restricted, if unnecessary four-color art sometimes seems to distract the learner from instructional purpose, then teacher preferences reflected in purchasing decisions and subsequently interpreted by publishers tend to be responsible. Few teachers and few publishers or authors consciously call for textbooks that are too easy for learners, that involve little writing, that are overly illustrated. But given the high risk investment decisions documented by John H. Williamson in another paper prepared for this conference, few publishers will or can consciously risk exclusion from adoption procedures by ignoring widespread customer preferences, however they might wish to do so. Every major educational publisher can discuss the distinguished failures in his publishing list during the past decade or two. For the most part, these have been programs of quality which introduced innovations different from those most schools were ready to accept. Clearly the industry stands ready to strengthen the level of challenge in existing textbooks, is willing to increase readability levels, and will provide more writing experiences for boys and girls whenever a large group of customers clamors for such changes. Since Chall so sincerely seeks a better education for all American children, one can hope that her call to action will be heard by school people who can galvanize publishers to action.

2. *Certain recent changes in textbooks and instructional materials relate to changes in the ways in which textbooks are selected*. The last two decades have seen important development in the ways in which textbooks are selected, which in turn have influenced the type of instructional materials considered in most school districts. In discussing adoption procedures, Williamson has clearly discussed the social pressures which influence selection of books and the nature of state adoptions and listings in open territories. What he has not treated, however, is the movement to provide a greater variety of materials for local school choices—the movement, for example, which led California to expand its statewide list in each subject from two or three basal programs to a dozen or more. In contrast with listings twenty years ago, most states engaged in the adoption process today permit the listing of a variety of programs—six or eight anyway. The overall result has been to open opportunities for alternative instructional programs as Isabel Beck has suggested. It also has resulted in a substantial increase in the number and variety of programs available for selection.

Secondly, the last decade has seen a movement away from the selection of textbooks by a small group of informed teachers and administrators through an arduous process of analysis toward greater involvement of many, if not classroom teachers, in making final decisions. This development, of course, has been enhanced by teacher militancy and demands by teachers to participate in all key instructional decisions. The predictable overall result is the greater premium placed today on usability of materials in the classroom (e.g., clearcut lesson plans, reproduced and annotated pupil pages in manuals, adequacy of practice materials, perhaps readability of the text, and less emphasis than formerly on adequacy of subject matter coverage or the research-base of programs). Indeed a 1978 study by Dolores Durkin on the teaching of reading comprehension in the middle grades suggests that many teachers today ignore teacher editions and teacher manuals and are concerned primarily with pu-

pil editions and the availability of testing and practice materials. One can speculate on how many of the recent changes in textbooks noted by Chall are traceable to the impact of teacher decisions. Clearly teachers, much more than supervisors, express concern over the teachability of pupil materials, the interest-level of content and illustrations, and the nature of support materials.

3. *The increased structure in instructional materials noted by Chall is traceable not only to expressed customer requirements but to new development technologies being applied by educational publishers*. The call for competency-based education, the programs for competency testing now installed in thirty-seven states, and today's widespread concern with pupil performance have influenced program developments. Research and development in instructional psychology, often supported by USOE/NIE and the regional laboratories has influenced basically the design of instruction programs. With skill and process-oriented programs in particular, publishers have learned to build programs to achieve desired learning outcomes; have found ways to provide for instruction, practice, and assessment; have developed tools to assist teachers in managing instruction which permits the diagnosis of pupil progress and response to individual need; and have developed affordable applications of learner verification studies to assess pupil performance before and after publication. If the regional laboratories cannot be credited with developing many specific programs acceptable to the schools, they have pioneered applications of instruction and design which have benefited the industry. Virtually all major publishers now maintain staff specialists in design, assessment, and learner verification to work closely with editors and authors.

4. *Changes in textbooks and instructional materials are clearly related to funds available for school expenditures*. The average textbook series requires three or four years for development (substantially less time than fifteen or twenty years ago). With today's adoption cycles ranging from six to eight years, the greater part of a decade will be required before every teacher in every school has an opportunity to purchase any book or series. A dollar invested in a new development in 1979 thus may not return until 1986–89 and, by then, discounted by the ravages of double digit inflation!

Four years ago the National Right to Read Program recommended an exemplary instructional program in reading which involved a complex system involving uses of mixed media and a variety of components so extensive that the installation cost was $189 per pupil. This occurred at a time when the average national expenditure for all instructional materials scarcely exceeded $10 per pupil per year! Seldom has educational reach so exceeded its possible grasp!

Today schools on the average spend close to $15 per pupil per year, but the sum is scarcely adequate at a time when installation cost for a basal reading program alone will range from $10 to $15 per pupil, depending upon the components desired. Continuing costs in reading could average an additional $3 to $4 per year. Three years ago in California an industry committee estimated an average annual requirement of $26 per pupil per year to fund purchase of basic textbooks in key academic subjects for a five-year life together with required consumables. However individuals assess the exact requirements, few would disagree that the average of $15 per pupil for instructional materials is minimal. Indeed it represents today less than seven-tenths of one percent of the total operating budgets of school districts, a decline of greater than 100 percent during the past decade.

Educational publishers understand the limited funds available to schools for the purchase of materials. They study further the impact of educational priorities on materials purchased, such as the recent increases in funding of mathematics, spelling, and composition programs, and the decline in support for music, art, and even social studies. Many desirable educational innovations can be financed only to the extent that they can be formatted within textbooks and materials that schools can afford. Some unique and recommended varieties of materials cannot be supported by present school budgets. Thus the financial structure of the school serves as a limiting and largely conservative influence on the design of new programs.

The unique factors discussed in this paper explain certain of the phenom-

ena observed by Chall in her detailed analyses. They explain both the commonality of textbooks and their uniqueness and the opportunities and limitations which affect developers in providing new programs. Given the fact that textbooks and related instructional materials influence extensively the teaching decisions made in every classroom, most educational publishers would agree with Chall about the significance of textbooks and the fact that their development, selection, and use would benefit from extensive research and study. Without exception, all publishers would like to see a study of the impact of fully funded and fully equipped classrooms on the improvement of learning and teaching. During the past two decades, far more research attention has been devoted to the impact of media on learning. Perhaps now the time is ripe to redress the balance and focus on the basic classroom tool.

The Learning Process and the Text in Use

Thomas G. Sticht

Thomas Sticht of the U.S. National Institute of Education discussed the relationships among texts, teachers, and students, and reported three case studies on the ways students use texts. The latter are excluded from this extract.

The title for this paper is a blend of two titles of chapters written by Cronbach in *The Text in Modern Education*. One of his chapters he titles *The Learning Process and Text Specifications*. In that chapter he presents an account of learning as a general phenomenon and discusses the implications of learning theory for textbook development and selection.

In reading *The Text in Modern Education* I was struck by the fact that the two chapters by Cronbach are separated by almost one hundred pages, and whereas thirty or so pages are devoted to a discussion of the learning process in general, only two pages are devoted to a discussion of the student's use of textbooks. Yet it is the manner in which students use textbooks that determines what and how much they will learn from the text. It seems to me, therefore, that we need to bring the discussion of the learning process and the use of texts together, to understand how students use textbooks to bring about learning.

Inquiry into the student's use of texts may provide important information about how to improve not only the student's use of texts, but also the teacher's use of texts and the publisher's design of texts to make them more usable. This is so because the text-teacher-student trilogy that we are concerned with forms an ecological system that has evolved over many centuries, with a major spurt in development resulting from the advent of printing.

From this evolutionary, ecological perspective we can anticipate that the student's use of texts will be conditioned by the teacher's use of texts. For instance, the teacher may assign certain segments of a text for reading. This provides an implicit instruction to students that certain segments of texts may be studied and that parts of texts may be omitted. Furthermore, this mode of teaching may be reflected in the design of textbooks in which each chapter may be developed to stand alone.

These types of text-teacher-student interactions take place in the context of both long-term cultural evolution and in the course of each child's developmental experiences—at least they do in our highly literate society. The cultural environment affects the text-teacher-student system in ways not yet fully understood. But clearly the content that teachers are permitted to cover, and that is therefore included in textbooks, can be seen to have changed drastically in this country in just the last twenty-five years. We can also surmise that changes in teaching methods, such as from an emphasis upon strict memorization of texts, with public recitation as a means of demonstrating learning, to the assignment of chapters for reading, with multiple choice tests administered to sample learning, has had an effect on the student's use of texts and on the very design of textbooks themselves.

In studying the student's use of texts then, we are studying only one part of a system that has a long evolutionary history. Teachers are first students who learn from textbooks, then they are teachers who use textbooks, and then they are authors who write textbooks, and so on and so on. Each new generation of teachers will help to shape a new generation of students into learners from texts. Each new generation of textbook authors writes with a set of implicit understandings of who the teachers and students are for whom they write, and with expectations of how teachers

will teach and how students will learn using their textbooks.

Studies of this text-teacher-student system are practically nonexistent, or so my literature review suggests. Yet such study seems of the utmost importance if we are to advance the system beyond its present state. Patricia Wright, the British ergonomist, has expressed, I believe, the sentiments of many researchers who have attempted to bring about improvements in the design of textbooks and other documents without understanding this eco-system. She states:

> Why is it that after many years of research, so little progress has been made in the development of specifications for designing written communications so that they are easily understood? (1978, p. 254).

It seems to me that one of the reasons for this perceived lack of progress is that many of the most significant "specifications" may already have been used not only in the design of textbooks, but in an implicit manner in the "design" of student's minds as they progress through the K-12 curriculum. By this I mean that, in teaching people to read and to apply reading skills to various bodies of knowledge represented in a wide variety of formats and organizations, teachers cause readers to develop various cognitive strategies for processing the information in written communications for many different purposes, including learning. Because of this extensive instruction readers become adept at processing a variety of text formats and organizations, and hence we are less able to show the importance of various features of texts.

Another reason for why it may be difficult to identify specifications for designing texts that seem to add much to design technology is that publishers, writers, and editors already use "specifications," or perhaps better put, rules of thumb, and their own native language intuitions to produce textbooks. Writers, for instance, may follow a certain simple set of design "specs" such as asking themselves, "Does this read the way you would say it?" Or a publisher might ask, "Have you first told them what you are going to say (given a preview), then said it simply (i.e., according to you own internal standards of simplicity), and then told them what it is you said (provided a summary)." Such design "specs" exist in certain fields, such as journalism, where reporters are told to get the who, what, when, where, and why of an event. They are then to write in an inverted pyramid, with the most important general facts first and detailed expansions later, so the editor can cut the article from the bottom-up to fit space requirements.

Another reason why it may be difficult to come up with specifications to improve the understanding of certain textbooks or other documents is that many times the problems are not lack of know-how but rather certain production system problems such as inadequate time schedules, incorrect information, accidental loss of information, and failure to incorporate last minute changes. The solutions to these production system problems lie in systems management, not in the development of specifications for the design of written communications to make them easier to understand.

Briefly, the point I am trying to make is that the modern textbook is a highly evolved tool that is, for the most part, easily used by teachers and easily understood by the majority of students for whom it is designed. This means that many implicit and some explicit "specifications" have been developed for the design of textbooks as used in a given text-teacher-student system, such as that found in the elementary, middle, secondary, or post-secondary school. In part then, an immediate order of business should be for research to reveal the nature of the text-student-teacher system, in specified situations, such as a given schooling level, and to make explicit the rules of thumb (specifications) used by text designers *as well as* the rules of thumb or strategies or activities followed by teachers in using texts as teaching tools and by students in using textbooks as tools for learning and for guiding performance (as in laboratory exercises). Though such study may produce explicit knowledge about how to design textbooks and may thus make it more efficient to teach people how to produce effective texts, it will likely not lead to "specifications" that can be mechanically applied to guarantee an easily understood written communication. The latter effect will always depend upon the availability of a reader who has been "designed" to understand the communication, and there must be a teacher "designed" to know how to bring text and student together.

Cognition and the Design of Textbooks

Lawrence T. Frase

Lawrence Frase of Bell Laboratories summarizes his general conclusion about the three case studies on the way students use textbooks presented by Sticht. He then goes on to develop his own ideas about thinking processes (cognition) and textbook design.

In my discussion I would like to do two things. One is to go over the major point that Tom Sticht made. The second is to put those points in a perspective that summarizes what we have been talking about at this conference.

The major ideas that Sticht discussed concern the concept of variability, the concept of expertise, and the concept of interactions in complex systems.

The variability notion implies that not all reading is equally useful. Some readers work hard, but they do not extract much durable or useful information.

The second notion is that effective readers know how to work. This is the concept of expertise. Effective readers do a number of things. They ask questions and they integrate information. They are selective in their reading, and this indicates that they can formulate their own goals. They also go beyond the information given. We do not know a great deal about teaching these kinds of skills.

The most important point Sticht made is the fact that textbook understanding is a system comprised of readers, teachers, text designers, social rewards for reading, and a host of other factors that we only incompletely understand. We need to understand the system better. I believe we can do this by looking at some of the simpler things we know about human cognition, reading, and writing.

The implicit emphasis that Sticht presented in his paper centers around two clearly defined areas. One is on the design of text; the other is on cognitive processes.

If we understand cognition we can develop standards for the way we ought to design materials. I suggest that we have made progress, if not in achieving a complete understanding of global reading skills, at least in understanding the content and form of textbooks, the content and form of cognitive processes and how textbooks and cognition can work together to produce learning or other outcomes, such as attitude change.

Sticht talked about textbooks and cognitive processes. But little has been said of the distinction between content, or the substance of a text (the basic matter that provides the ideas that we are trying to communicate to people), and the form in which content is presented. This is a useful distinction, with design implications, that I will try to clarify.

There are several areas in which we have made fundamental progress in our knowledge of how textbooks are understood. One area is in the structure of content. New techniques for discourse analysis permit a deeper understanding of the concepts and relationships among concepts in a text. We ought to look more carefully at these techniques. Word frequency counts, linguistic structures, and semantic features can be better defined today than before through multidimensional scaling.

But our ability to define *content* is relatively weak, compared with our ability to define the forms of textbooks and cognition.

Readability measures relate to textbook form, not content, because readability formulas only measure surface characteristics of texts. They do not tell much about semantic structures, though they correlate with them. Therefore we might consider readability to be a useful technique for indexing the form of a textbook. We

also know something about typographical features that are relevant to cognition, such as line length and type size. So we have a fair handle on aspects of form.

But we have made most progress in defining the form of cognition and how that influences learning. Problem solving research, research on attention, active responding, and purpose in reading are areas in which we have made progress.

We need to take the four areas of content of text, content of cognition, form of text, and form of cognition and put them together in new ways to produce more effective designs.

I will give two examples of how these separate components work together. The first is an example of what it means to alter learning by matching the form of cognition to the content of a text.

In this example, we consider a list of words of animals as a simplified version of a text. It has little coherence in the sense that discourse has coherence. Suppose that we want to increase the depth with which the words are processed during reading. I could ask a reader to go through and circle the living creatures in the list. That is fairly easy to do. But I can deepen the form of reading if I ask the reader to circle the *dangerous land* animals. Now one has to make finer discriminations. In our hypothetical word list there is a content base implicit. There is a content base that the reader has in his or her mind too. But if the reader did not know anything about animals, or worse, did not know how to read, he or she would not be linking (matching) what was seen with what was known. Hence, we can modify the form with which a reader operates on information either deeply, by constraining one to process the fine discriminative features of content, or in a more shallow cognitive sense, by constraining one to process more general categories of content.

Research has indicated that the proportion of words recalled when people read through word lists differs if they read under general instructions or specific instructions. Deeper semantic processing clearly favors high recall. The notion is that deeper processing tags semantic information which then provides cues for memory retrieval.

Another lesson from research is that some of the variability in learning, indeed a substantial part, is due to the fact that some people are unable or do not want to follow instructions. Some persons are imprecise readers and others are precise readers. The imprecise readers show significantly less recall than the precise readers. So here you have a simple example of the fact that there is variability among readers and they can veto our design manipulations.

A final example of matching the form of text to the form of cognition follows. We know that when people read a text one of the things that they have to do is break it up into meaningful chunks of information. The mind operates on those chunks of information. Suppose we were to take a text and use typographical formats to segment the information so that those meaningful chunks stood out in some way. This would remove part of the task of reading, which involves breaking a text up into meaningful components. This is an example of matching the form of a text to the cognitive processes of readers. We've done several studies on formats like these. On the average, people are able to read, for very complex purposes, about 18 percent faster when units are typographically segmented than when they are in ordinary text format. If deliberately missegmented, experimental texts take longer to read than ordinary texts.

To summarize, we have learned to control the form of cognition and the form of texts in ways that can better achieve educational goals. I suspect that we are on the verge of new approaches to text design.

We're all working to understand how we can apply research like this to design. I think a major point has been made at this conference. Let me phrase it this way. The function of research is not to provide answers for how one is going to design a page, but to provide a framework for understanding, in specific situations, the events that can be arranged to facilitate whatever outcomes seem desirable.

Current Issues in Textbook Publishing

Textbooks and the Military

Sue Dueitt

Sue Dueitt is deputy for human systems and resources, Office of the Assistant Secretary of the Army.

Before I talk to you about the Army's interest in the American textbook, I want to put the Army organization into proper perspective for you. Over at the Pentagon, Secretary A'exander likes to say that people are not just in the Army; people are the Army. We have 1.7 million people, civilian and military, who make up the Army. It is comprised of the active Army, the Army Reserve, and the National Guard. These people are scattered all over the United States and its territories in eighty-nine foreign countries. The Army's annual budget is $25 billion. Sixty per cent of that budget goes into the manpower, personnel area that I'm involved with. The mission of the Army, ironically, is peace, because we understand that the greatest deterrence to war is a strong defense. So that is the Army, and I'd like to say that certainly we are in the people business.

Now to the Army's interest in the American textbook. The volunteer Army draws its manpower pool primarily from high school graduates. In fact we have learned that the high school diploma is the single best indicator that a recruit has the stick-to-it attitude needed for success in the military. It is true that we do take some non-high school graduates, provided they score high enough on the enlistment test, but my major point is that most of the people who join the Army have gone through the socialization process of the American high school. Therefore, for those of us who are interested in how to attract and motivate and retain soldiers, we need to know what they're experiencing in the high schools and what values are being inculcated there, what set of beliefs and values do they come to us with.

As a former classroom teacher, I know that many teachers teach the textbook. In fact, I know that in certain states teachers are held accountable for teaching the concepts that are in the textbooks and the manuals. So I believe that the ideas, the cultural traditions, the values that are in the textbook then become a major influence on the values and opinions of our potential soldiers. So if we want to understand the soldiers, we can learn something by looking at the textbooks. Taking note of the high school textbooks that our soldiers have encountered before coming to us gives us three important clues about their trainability. One, it tells us about the complexity of the subject matters that they're accustomed to dealing with. This is important to us in the military because we have more sophisticated weapons systems, and we want to know if they are capable of dealing with them. Second, it tells us about the readability level of the materials that they have encountered. The Army is now looking at the readability level of its soldiers manuals, training manuals, and technical manuals, in order to rewrite them at various levels, seventh to ninth grade levels. We don't know which level is best, so we are continually analyzing and evaluating the manuals. The main thing is to keep the reading level equivalent to one the students have been accustomed to. And third, it tells us about format, whether the case study approach or programmed text or self-paced text, whether with cassette tapes or not. The kinds of materials the soldier encountered in high school affect the kind of material he would expect to encounter in the military.

The Army's continuing education program includes developmental courses in the basic skills, math, reading, writing, and English as a second

language. These developmental courses not only help the soldiers in their jobs and in their personal lives, but they also prepare them to pursue higher education courses which are offered on military installations all around the world. The textbooks and the curriculum materials that are prepared for these soldier-students need to be adaptable and flexible. Soldiers do not take their courses in normal quarter or semester cycles, and the curriculum materials must be flexible enough to adjust to interruptions for training.

Finally, I want to comment on the textbooks that are used for the dependents of military personnel. No doubt some of these 640,000 children wonder why their parents' occupation, the profession of soldiering, is not represented more frequently in the textbooks of the schools. Most occupations are now receiving attention in the textbooks for K–12 as a result of the nationwide focus on career education. But the Army is too often overlooked, both in textbooks and on television programs. You see a commercial showing a cross-section of society using a certain product, but there aren't any soldiers there. Soldiers drink soft drinks and drive cars and use shaving cream, but they never appear in commercials. They are rather like the blacks in Ralph Ellison's *Incisible Man*. They exist but many people are not aware of their existence.

During the school year 1978–79 the Department of Defense spent $8 million on texts and library books and spent an additional $6 million on supplies and educational equipment, filmstrips, transparencies, and slides. Now that's a chock of change, and its is a constituency that I don't think has been recognized. That is the Department of Defense school system alone. Now, let's shift to the Army. Most Army dependent children attend public schools operated by state and local agencies, but in some locations where the state and local governments cannot provide schooling, the Army takes on this burden and operates schools under provision of Public Law 81-874. These are Section 6 schools. The Army has nine Section 6 schools, and it enrolls 25,000 students. During the school year 1978–79 the Army spent $773,000 on textbooks and an additional $678,000 for educational supplies and equipment.

The men and women who make up the Army need the support of the American public just as the American public needs the security provided by the Army and the other military services. So in closing I would ask you as publishers, editors, scholars, to do what you can to insure that the American soldier is depicted realistically in the textbooks in our public schools.

Textbook Publishing: Facts and Myths

John H. Williamson

John H. Williamson, president of the Silver Burdett Company, presented a major paper on textbook publishing. Excerpts from his paper follow.

The school textbook industry is probably the only highly competitive industry whose prime market is governmental agencies, which receives no subsidies and that is subject to many restrictions like those placed on public utilities, but without any of the concomitant benefits. Textbook publishing is hedged about by an incredible tangle of laws, administrative regulations, and customs unlike those imposed on any other commercial venture. Much of this tangle is concerned with either the selection process or the book content considered acceptable to the selectors.

To look at the tangle intelligently, one needs to understand that much of the attitude toward elementary-high school (el-hi) publishers on the part of lawmakers, the general public, department of education personnel at the state or local level, various groups of concerned citizens, and educational practitioners is based on myths—myths that, regrettably, publishers themselves have done little to dispel. Let us take a brief excursion through the textbook industry of fable.

MYTH: The textbook industry is enormous.

FACT: The textbook industry is, by any measurement, a midget. The total sales of all el-hi publishers are currently about $700 million per year. By comparison, the Xerox Corporation has sales that are seven or eight times those of all textbook publishing.

MYTH: The schools spend huge amounts of money on textbooks (this myth is a corollary to that preceding).

FACT: Textbook purchases constitute approximately three-fourths of one percent of the educational expenditures of the average school system.

MYTH: Textbook publishing is a high-profit industry.

FACT: The after-tax profit of el-hi publishers as a group is, in many years, about equal to the interest the average depositor gets on his or her savings account.

MYTH: Publishers are interested only in profits.

FACT: Publishing is a business serving a limited and highly specialized market. Any business that does not do all it can to serve its market well and to meet the expressed needs of that market quickly dies, and private textbook publishing has survived since the days of Noah Webster. Moreover, publishers are made up, not merely of businessmen, but of professional educators who serve as authors, editors, and consultants.

MYTH: Publishers refuse to publish paperback textbooks that provide greater flexibility in the classroom.

FACT: Publishers have brought out paperback textbooks, mostly to their regret. Schools, in general, are reluctant to buy paperback textbooks because they cannot stand up to hard use for four or five years; they cannot contain as many pages as casebound books and, therefore, several are needed for a year's work; they are not significantly cheaper than casebound books of the same length.

MYTH: Paperback textbooks can be sold at significantly lower prices than hard cover books.

FACT: The only difference in cost between hard cover and paperback books is the cost of the cover itself, which is an insignificant item in overall costs of developing and publishing the materials.

MYTH: All textbooks are written by employees of publishing companies who know little or nothing about the schools, and most of the important decisions about content are made by salespeople.

FACT: The preparation of elemen-

tary and high school textbooks involves procedures that cannot be described briefly. In general, planning the approach, identifying and sequencing the content, determining the level of difficulty, and outlining are carried out by a joint team of authors and editors (usually plural because of the difficulty of the task). Writing is then turned over to the authors. In the planning process, the salespeople's views—based on their field experience with the publishers and competing works—are evaluated. Sometimes the team will accept them as valid, sometimes the views will be rejected as not consistent with long-term educational trends.

MYTH: Publishers have a direct pipeline into the classroom and so can strongly influence both classroom teachers and their students.

FACT: Between the publisher and the classroom is a labyrinth through which educational materials must be guided by the publisher. Once placed in the classroom, materials can have an influence if the teacher wishes, but there simply is no way in which any publisher can exercise direct influence over the nation's classrooms.

MYTH: Textbooks are one of society's most potent instruments for controlling the minds of the young and determining their future values, standards, and customs.

FACT: Legislators, pressure groups of various kinds, and the educational establishment itself have a long history of disappointment in their efforts to mold society through textbook content. Without textbooks, would we have more people who support our government, right or wrong, and vote, but do not litter, drink, smoke, pop pills, have accidents, eat junk food, use double negatives or tell ethnic jokes? Your answer to this question is probably as valid as anyone's, but in the face of the evidence, it is apparent that all the emphasis on human behavior in textbooks has not changed that behavior greatly.

However, if one were to look at textbooks as a repository of what a society considers important at a particular time, one would find them revealing. In the thirties, to select one time and two examples, the treatment of females and of black people clearly mirrored the attitudes of society. All females were portrayed in homemaker roles, supportive of males and possessed of the gentler attributes of humankind: passivity, gentleness, and timidity. Blacks were not portrayed at all among the inhabitants of the United States. They did turn up in foreign lands, which our society found quite acceptable, and in history dealing with the triangular trade or the Civil War—but otherwise, they were Ralph Ellison's invisible men. Today, blacks are quite visible in school materials used throughout the nation. The acceptability of such materials is not the doing of the publishers—much as we would like the credit. It is rather an example of the fact that textbooks mirror our society and contain what that society considers acceptable.

The foregoing should not be taken as a plea for abandoning worthy exhortations and prescriptions in textbooks. It is simply a caution that the ability of textbooks to change society, if not a complete myth, is greatly exaggerated.

Because the market for textbooks is the entire nation, one should not conclude that the means of selecting textbooks is uniform. Far from it. In every part of the country, states, counties, cities, or school districts follow adoption procedures that have as their goal the assurance that learning materials of the best quality are made available to school children in an orderly way, at the lowest possible price, and with safeguards to make their selections as objective as possible. But to try and describe all of the regulations for implementing this goal is a hopeless task. However, there are some generalizations about adoption procedures that give order to what might at first glance appear to be a crazy quilt of practices.

As is well known, the selection process may be broken into two general categories: the process followed by the adoption states and that followed by the so-called open territory.

There are twenty-two adoption states, most of them in the southern and western United States. Their selection—or adoption—procedures tend to reflect the intent of these states to maintain a strong central control over their entire school systems. As part of maintaining such control, these states have established elaborate systems of laws and regulations dealing with all aspects of education, including the textbook selection process.

The practices in open territory tend to reflect the desire of these states to

eschew strong state-level control of education in favor of local district control. While these states too have statutes covering various aspects of education, they tend to be silent on textbook selection and purchase. In an open territory state, selection procedures can be rigid in one district and permissive in its neighbor. The practices of the adoption states have a strong influence on all textbook marketing.

In recent years, militancy for causes has been as pronounced as at any time in our history. There are crusades for women's rights and crusades against communism. There are crusades for conservative causes and for liberal causes. There are crusades for a better environment. There are crusades for and against sex education. There are crusades by various ethnic groups for recognition of their cultures. Those who develop learning materials for the schools know that all of these groups have one thing in common—the conviction that textbooks and related materials are a major vehicle for furthering their crusades.

Aware of the sensibilities of various groups, publishers go to great lengths to avoid offending. But they cannot escape.

In fact, it is frequently said that school publishers are too quick to give in to pressures; too ready to yield to what many consider a form of censorship; too eager to sell their product to take a stand. Publishers are also accused of not taking positions on sensitive issues or, conversely, of trying to foist harmful views on the defenseless schools. All of these comments entirely ignore the nature of our educational system and the role of the publisher in that system.

It is unlikely that any one of you does not feel that you have the right as a parent to pound on the desk of a school superintendent and demand a change if, in your opinion, the school is engaging to teach your child anything you find offensive, immoral, or just plain useless. And in claiming that right for yourself, you must allow others to claim it.

By the same token, should not a state or local textbook adoption committee listen to and try to meet the concerns of citizens, so long as those concerns are not illegal or do not violate the rights of others?

Long ago, our forefathers, in their wisdom, left the education of the young to the states and many states in turn gave the responsibility to the local communities. Parents in the various states and in every local community expect the educators to reflect their beliefs, customs, culture, and attitudes in teaching their children. Educators in turn expect publishers to produce sound learning materials that will not bring the educators into conflict with their community. Publishers know that they are a service industry and can succeed only as long as their service is found acceptable by educators and, beyond them, by citizens in general. So far in our history, publishers have not caused the large group of educators or citizens to seek other means of obtaining the textbooks and other materials needed in the classroom. And publishers, despite grievances of various kinds about the system within which they operate, know that it is a workable system and that their place in it is respected.

Diversity, Pluralism, and Textbooks

Myra Pollack Sadker

Myra Pollack Sadker's response to John Williamson's presentation includes references to comments omitted in the extract of his paper printed in this volume. Myra Sadker is dean of the School of Education, American University.

I appreciate John H. Williamson's attempts to dispel myths and create a clearer picture of the realities of textbook publishing. However, I am concerned that in this attempt to dissolve one set of myths, another set may be created. It is the section of his paper on meeting the expressed needs of special interest groups that gives me most concern.

Williamson talks about crusades by various groups to impact and change the content of elementary and secondary texts. He illustrates the pressures these groups place on textbook publishers by noting these examples: a cartoon character, top-hatted Count Muchmore, that N.O.W. termed a symbol of "white male dominance"; two elephants in tutus that a protester charged as harmful to "the proper self-image among female pupils"; and a table, considered offensive, on blood type and ear wax consistency of various races. The impression left by this catalog of objections is that pressures exerted by women and other minorities may be unreasonable and, particularly when considered out of context, even ludicrous and bizarre.

I would like to suggest that this choice of unfortunate examples generates a distorted portrayal of special interest concerns, a mythology of what their needs, their views, their objections are all about. Indeed, the real issues concerning textbook content are not those of tophats and tutus, elephants and ear wax, but rather of scholarly accuracy and balance of perspective that must be essential to ensure and maintain textbook quality for our students and teachers.

There are many examples of this distortion of reality in textbooks that Williamson could have cited. These have been documented by thorough and comprehensive content analysis research. He could have noted a study of the twelve most popular secondary history texts indicating that the average amount of space allocated to the women's suffrage movement is approximately two sentences; that typically there is more space given to the six shooter and the bloomer girl than to the experiences and struggles of frontier women. He could have noted studies of illustrations in Caldecott medal winners that show that the ratio of males to females in these book illustrations is 95 to 1. He could have discussed the extensive research on basal readers documenting the invisibility of women, particularly in the paid labor force, and the denigrating simplicity with which the role of women in the home is portrayed. Most of this content analysis research was published in the early 1970s. Some more recent studies suggest modest advances. Other recent studies indicate that almost no progress has been made.

Under funding from the Women's Educational Equity Act, Office of Education, David Sadker and I conducted a year long content analysis study to determine what twenty-four of the leading teacher education textbooks tell future teachers about the contributions of women, about sexism, and about sex differences. We wanted to assess whether these books are helping prospective teachers create sex-fair classrooms where all children, regardless of sex, can grow and develop to their full potential. All texts selected for analysis were published between 1973 and 1978. Since Title IX, the law which prohibits sex discrimination in schools receiving federal funding, was enacted in 1972, it is reasonable to expect that these

texts would include information concerning sex equity in education.

This was our research procedure. We developed and field-tested a comprehensive content analysis instrument and trained teams of raters in its application. Each of the twenty-four texts was analyzed by at least two raters who applied the content analysis instrument to the contents of each book, including narrative, illustrations, indices, footnotes, and bibliographies. The raters analyzed the amount of content allocated to females and males, the treatment of the experiences and contributions of women, the treatment given sexism, and sex differences.

After a year of textbook analysis, we reached our conclusion: our major teacher education textbooks are failing to include important issues related to women and other minorities. Over ninety-five percent of the texts give the issue of sex equity less than one percent of book space. One third of the texts do not mention the issue of sexism at all. Most of the texts guilty of this oversight were in math and science—the areas where girls are most likely to have achievement difficulties. Further, not a single text provided future teachers with curricular resources and instructional strategies to counteract sexism in the classroom.

When the books treat the history of American education, none of them mention women. It goes unremarked that women were denied access to education beyond the dame school for the first half of this country's history. If there is any field to which women have contributed—both collectively and individually—it is that of education. But these books tell mainly, in some cases only, of the contributions of white males. They neglect to mention the efforts of Emma Williard, Catherine Beecher, Mary Bethune, and Maria Montessori. Occasionally the books truly border on the bizarre. One provides no mention of Title IX but offers an extended discussion of the pros and cons of a dual salary scale, one that would pay female teachers less than male teachers.

Although the focus of this study concerned the treatment of women, sexism, and related issues, we decided to go beyond this boundary in order to consider the coverage afforded racial and ethnic minorities in these major teacher education texts. We wanted to obtain some indication of the progress made in another area of educational equity, one which predates sex equity in our national consciousness.

We found that in twelve of the twenty-four texts, less than one percent of textbook content was devoted to the issue of race and ethnic discrimination. In these texts, prospective teachers are given little preparation for understanding or working with children from diverse racial and ethnic backgrounds.

It may be, and indeed it is my hope, that elementary and secondary texts have made more positive strides than have the books we use to prepare our future teachers. But, I must admit I am plagued by some doubts—doubts given credibility by elementary and secondary textbook studies which do not reflect extensive progress.

Many more questions arise as I try to sort my way through myth to reality. One deals with Williamson's statement that "the matter of minority representation in textbooks—and of fair representation of women too—is relatively quiescent at present." I travel across the country to work with teachers in analyzing the curriculum and the textbooks they use in their classrooms. I have not found them to be "quiescent" about the accurate and balanced portrayal of women and other minorities. I suspect they would be amazed to hear themselves characterized as such.

There is one belief I hold firmly, and I remain optimistic that it does not lie in the realm of myth. This belief concerns the commitment of publishers to quality textbooks and their willingness to respond and change when presented with rational argument and documented evidence. We have found that many publishers have forwarded the results of our study of teacher education texts to their authors; these publishers are encouraging writers and illustrators to consider the results so that future textbooks will present more equitable portrayal of women and minorities. And I remain hopeful that publishers will continue to go beyond pictures and pronouns, tophats and tutus, elephants and ear wax to deal with issues of accuracy, balance, and perspective. This is essential if our students and their teachers are to acquire greater understanding of the rich diversity that is integral to our nation's development and progress.

Adopting Textbooks

Claude C. Warren

Claude C. Warren's response to John H. Williamson's paper was entitled "The Basal Textbook: Adoption Practices and Trends in Adoption States." Claude Warren is director, Division of Textbooks, North Carolina Department of Education.

What is a textbook? This question has come into sharp focus within the past twenty years for two reasons: (1) the tremendous influx of educational materials made available to the public schools of America and (2) the high level of funding made at both the state and federal levels for education materials.

A definition to some people may be very simple; to others it is a highly complex matter. People look at the textbook from varied perspectives. The National Association of Textbook Administrators (NASTA) has a definition that states: "The term 'textbook' as used herein shall mean printed instructional material in bound form, the content of which is properly organized and intended for use in Elementary or High School curricula." This definition appears in the *Manufacturing Standards and Specifications for Textbooks* developed by the National Association of Textbook Administrators in consultation with the Association of American Publishers and the Book Manufacturers' Institute, and speaks primarily to the structure of the textbook—not to the content. This definition is the primary basis for modifications made by the National Association of Textbook Administrators, the Association of American Publishers, and the Book Manufacturers' Institute in its advisory commission on textbook specifications.

Within the membership of NASTA (primarily state adoption territories in the southeast, south mid-west, and southwest), many definitions prevail. Of the eighteen states attending the NASTA annual conference in Sun Valley, Idaho, in July 1978, thirteen cited a definition used to determine either the structure or the content of textbooks which could be considered for approval for inclusion on a state adoption list for use in the public schools of their respective states.

The definition used for a textbook may be found in the general statutes of a state or in policies adopted by a state board of education. In either case, the definition has the same status of authority.

In most states, there are laws which dictate a course of study for each grade level. Such laws usually speak of the book as being the *basic* educational tool used after a course of study has been determined for each subject area and level of instruction.

Usually, the state departments of education in the various states are, by law, responsible for a standard course of study. In conjunction with such standard courses of study, criteria for textbook selection are established. The criteria are based also on curricula modifications that occur; therefore, the standard course of study is constantly studied for necessary changes to keep the curriculum "in tune with the times."

The various states with membership in NASTA adopt textbooks and place them under contract for a period of from four to six years, with some provisions for extensions. Most of these states have a guaranteed price for the length of the contract. A number of states are now signing contracts with publishers with a provision for escalating the prices after a period of time, with certain restrictions regarding the percentage of increase.

A survey on the practices of adopting books, in the territories having adoptions, indicates that there are many common denominators. The result is usually a professional determination with much input from the classroom teacher; and membership on commissions or committees is usually recommended by the chief state

school officer with final appointments made either by the state board of education or the governor. Oaths of office are usually required of each person in which he or she vows to uphold the laws of the state and the professional integrity of their service on the commission or committee. The eighteen states represented at the NASTA meeting in Sun Valley reported that a highly structured and professionally competent committee or commission has the responsibility of evaluating textbooks and recommending them, usually, to the state board of education for official adoption and placement on an approved textbook listing for use in the public schools of their respective states. Membership on the commission varies from one to six years.

These committees or commissions were overwhelmingly filled with teachers in each state. School administrators were also appointed to such bodies. Eight of the eighteen states reported that university personnel served, while nine of the eighteen reported that lay citizens served on the committees. While lay citizens have served for many years in some states, they were not appointed to membership on the commission in North Carolina until July 1977. Furthermore, relationships between the evaluation groups and the publishers vary from state to state.

Pressures are felt by school administrators from all areas of the community, but the most pressure today is probably that being exerted upon the classroom teacher. He or she is ultimately responsible for the progress of the students as they are directed each day in the *use* of instructional materials. Accountability has become a stinging indictment in the educational community as we find many students leaving the public school without basic "survival skills" needed in a modern computerized world.

Perhaps the education family has been too busy trying to please its many critics. The discovery was suddenly made that basic education was being taken for granted in this multimedia world in which we live. There are many reasons for the lack of basic skill comprehension, but the lay citizenry is now demanding that accountability be made manifest in a "return to the teaching priorities of reading and computational skills."

While educators were aware of these shortcomings, it was parent awareness that brought into sharp focus the fact that the educational system in a democratic society does not function solely on the expertise of the professionals.

In 1977, the North Carolina general assembly enacted the high school competency testing law. The law had three purposes: "(1) to assure that all high school graduates possess those minimum skills and that knowledge thought necessary to function as a member of society; (2) to provide a means of identifying strengths and weaknesses in the education process; and (3) to establish additional means for making the education system *accountable* to the public for results."

The act established a commission to recommend tests to the state board of education, and the first test to high school juniors was administered in the fall of 1978 in the areas of reading and mathematics. Approximately 90 per cent of the eleventh graders who attended the public schools in the state passed the reading competency test; 85 per cent of this group passed the mathematics test. Funds have been provided by the legislature and programs have been established for remediation for students who did not pass the test. Appropriate textbooks are being sought to use in the remediation programs.

In addition, the North Carolina general assembly, early in 1977, enacted a statewide testing program statute. The act states that the "intent of this testing program [is] to help local school systems and teachers identify and correct student needs in basic skills rather than to provide a tool for comparison of individual students or to evaluate teacher performance." Students in the first, second, third, sixth, and ninth grades were tested during the 1977–78 school year. Criterion-referenced tests were used in the first and second grades, and norm-referenced tests were used in the third, sixth, and ninth grades. The law provided for a testing commission which reports to the state board of education.

As a result of the testing program, teachers are looking for the *skill* oriented textbooks. In many instances, it seems that materials published twenty to thirty years ago, with necessary updating for the 1970s, have proven the most popular ones in recent adoptions. The teachers are not

as receptive to suggestions in textbook selections given by the curriculum directors as they were prone to be a few years ago. The average classroom teacher views testing of his or her students as a "measuring rod" of the teacher's performance as a director of instruction. Thus, accountability, as measured by these test results, is a stark reality of job security for the teacher.

The statewide testing programs are not limited to the state of North Carolina. Florida is already involved in testing; Louisiana and Tennessee are preparing programs for testing.

It is appropriate to note that statewide assessments are not usually initiated by the education departments, but they are the result of an aroused lay citizenry. The issues therefore become politically motivated rather than educationally motivated.

In order to establish a better relationship between the lay public and the schools, the North Carolina general assembly passed a community schools act in 1977. The purpose of the act was "to encourage greater community involvement in the public schools. . . ." The act provided for the establishment of "community schools advisory council(s) . . . composed of citizens organized to advise community schools . . . and administrators and local boards of education in the involvement of citizens in the education process. . . ." Many activities have begun as the result of the act, but the most important and far-reaching result will be the reestablishment of parent awareness as it relates to the educational process within the school community. The parent-teacher-student will again become a team for the educational process and will place the teacher in an accessible and accountable position to the parent.

The parent has always related to the textbook, because it was there when he or she attended school. It stood as a symbol of authority. It has not lost its status with the parent as it may have done with the teacher. No other single instructional tool has within its scope the potential that a *dedicated, imaginative* teacher can use in directing the student through the learning process for acquiring the basic skills needed to be a successful, contributing citizen to the world of today.

In summary, the textbook, as an educational tool, has survived many centuries despite changes in educational philosophy, methodology, and social obligations undertaken by the American society. As a tool of instruction, it has no equal in America today. The educational institutions and the private publishing houses have worked together to provide the best possible texts for our educational programs in this country. Definitions of textbooks may vary, but in the final analysis the differences are minute. The processes used to select materials for the "approved list" has retained, for the most part, an aura of professionalism that tends to enhance the effectiveness of the American educational goal of universal education for the citizens of America.

Emphases change from one decade to another that will influence the political and social approaches to the type of textbook that should be developed and used in a mobile society such as America. Accountability has taken on a very strong, political ally in many states in the form of laws and strong state and local educational policies. The teacher, who is still the key to a vital educational program, must keep abreast of the changes that the lay citizenry demands and must adjust as needed in order to provide the services inherent in his profession. Thus, the textbook selected by the teacher must be the tool that will best serve the children of the community in which it is to be used.

Textbook Publishing in America

Alexander J. Burke, Jr.

Alexander J. Burke, Jr., is president of McGraw-Hill Book Company.

Textbook publishing is rarely viewed as the glamorous side of publishing. It has a puritan heritage that resides even in the authoritarian overtones of the term—*text* book. As the standard, scriptural authority, the textbook is forever inviting the attacks of the revolutionary who has now learned more than what is in the textbook. Someone once remarked to T. S. Eliot that the writers of the past are now irrelevant because we know so much more than they did. Yes, he replied, with a curt retort, and they are what we know. It is perhaps not too gross an exaggeration to suggest that textbooks occupy an analogous position.

If we are to understand the role of the contemporary textbook, we may have to view it through some of the fundamental misconceptions or bromides that often stand as unexamined accusations, leveled most often by those who have never written textbooks.

Frances FitzGerald's series of articles in *The New Yorker* on history textbooks provides a recent expression of some of these misconceptions. Her views of the textbook world as a gnostic or esoteric enterprise betrays what is the source of these misconceptions: our failure to communicate how the enterprise of textbook publishing is really conducted. Let me quote some sample passages:

> There is a great deal of secrecy in the textbook business. Not just the publishers and editors but the authors as well do not care to explain exactly how texts come into being. To the uninitiated, the very thought of what goes on in a textbook house must inspire a good deal of vertigo. Way up in some office building sit people—ordinary mortals with red and blue pencils—deciding all the issues of American history, not to mention those of literature and biology. . . .
>
> Textbook editors must appear to be the arbiters of American values, and the publishing companies, the Ministries of Truth for children.

As one who knows the trials of recruiting young people to textbook publishing, I will in the future suggest the conspiratorial glamour of our reputation. I regret, however, that anyone who has done as much research on textbooks as Frances FitzGerald has could reach this conclusion. It argues that those of us in the industry must communicate better the true condition of our craft. And so I will address certain bromides of textbook publishing.

The first is that there are many who remember with nostalgia the blue-black Speller of Noah Webster and McGuffey's Readers. They assume, perhaps rightly, that these were one-man works of genius. But today the making of a textbook has become a far more complex task, reflecting our understanding of the complexity of the learning process.

The complexity of learning makes for an array of specialists, such as you will often see listed on a modern textbook. The process seems to the uninitiated to be strange and mysterious; as the European commented, after he sent a textbook manuscript to an American publishing house: "It will be treated on the superstitious notion that an opera, if it is written by ten composers, will be ten times better than if written by one."

In actuality, the process is really no more complicated than it was to produce the King James version of the Bible in 1611. Committees met to argue and discuss the content, but it is said that in the evenings Bishop Lancelot Andrewes produced the text. And so it is today. On the most successful textbook series, there is

generally one author whose leadership, personality, and writing leaves his stamp upon the series.

The second bromide I would like to address is a very old and yet a very fashionable one. Once again, let's hear Frances FitzGerald's description:

> The first step in the current process [of developing a history textbook] is to find two or more authorities in the field, including one academic historian and one school teacher or administrator. The rationale is that a specialist in history and a specialist in children can write a better text together than either could alone. But—like most educational theories—this assumption cannot be proved or disproved, since the text houses often choose both specialists for their prestige or their influence with school boards rather than for their skill in collaborating on the writing of histories for children.

There are so many misconceptions entangled in those few sentences that I regret I will only have time to untie a few. The first problem any textbook publisher has in securing a first-rate scholar to do a book is one compounded of snobbery, prejudice, and priorities. On the academic balance sheet, the production of a first-rate textbook is a liability. It incurs the envy of your colleagues but earns no publishing credit under the ultimatum of publish or perish.

Yet there is an acute need for publishers to attract the best talent in the country to textbooks, and the circulation of Frances FitzGerald's half-truths may make this all the harder. One reason why a classroom teacher is often a part of this collaboration is that too many professors have too little time or disposition to reacquaint themselves with the realities of the classroom. If Frances FitzGerald had undertaken to teach history to a group of eleventh-grade students in Roxbury, Massachusetts, and Shaker Heights, Ohio, and rural Arkansas, she would quickly have sensed that the critical question about history textbooks is not only whether the interpretations are sound and current but whether the books are effective teaching tools in motivating and educating the wide range of students who use them. It is the help in making new textbooks effective in the classroom which teachers provide and authors often welcome.

There is a third bromide that Frances FitzGerald and many others often address, namely, the contention that textbooks are a patchwork quilt of compromises where blandness and idealized images always predominate. Just so Miss FitzGerald doesn't get all the credit for attacking textbooks, let me quote from a recent book by Paul Goldstein called *Changing the American Schoolbook*:

> A planner setting out to design a system guaranteed to discourage the purchase of innovative instructional materials would be hard pressed to improve on the system for materials selection that is followed throughout the country today. Although margins for efficacy and diversity do exist, the overwhelming preference is for the lowest, least unsettling common denominator in instructional materials content.

This pattern of perference stems from a concert of forces. Instructional materials selection is an open-textured process, inviting and accommodating the opinions and decisions of state lawmakers, state and local school administrators, teachers, parents and students, and the variety of organizations into which they group themselves. The fact that current patterns of consumer preference are formed from so many forces helps to explain their persistence and the futility of efforts to alter the pattern by altering one or even a handful of the elements that form it.

Because in America we do not have any single Ministry of Truth for children, the textbook becomes a unique vehicle in our culture. It must receive the acceptance and approval of each school board and some support of many teachers. It is previewed and prejudged as is no national television program because before it enters the classroom, it requires this multitude of approvals. The strength of this system lies in its diversity. With one and the same book all segments of the country and society must be satisfied, at the same time that the array of offerings are specialized to the needs of the average, the gifted, and the slow. In its favor we must say that it avoids the tyranny of a centralized ministry of education, as prevails in France or Russia. Also, it should be noted that this system is not merely a negative one of removing the offensive material, it is a positive one that

requires equal treatment of the sexes and full representation of minorities. Its weakness is that the system of adoptions is not easily open to change or a willingness to innovate and experiment. Anyone who has ever sat in on a Texas Board hearing of citizen complaints or who visited Kanawha, West Virginia, knows just how controversial textbooks can be. It should be said that authors and publishers often fight for change but the circumstances are difficult and the weapons few.

The last bromide I would like to dissect is, in many ways, the most troubling of all. It is one shared by both Paul Goldstein and Frances FitzGerald. Let me quote Mr. Goldstein's pungent statement of this charge:

> No great hope should be placed in research and development aimed at increasing product quality through materials enabling students to learn more, and more effectively, in less time. . . . the conditions surrounding instructional materials purchase offer little room for moral claims or the advantages of lead time.

Mr. Goldstein's arguments revolve around two assumptions: first, his agreement with Christopher Jencks that school systems put a premium not on achieving a few spectacular successes but on avoiding any spectacular failures, and second, his view that what economists call "inappropriability" removes all incentives for publishers to engage in research and development. Inappropriability is a concept which holds that because an invention is available to all once it is communicated, its value cannot be appropriated by its developer. The nature of our copyright laws is such that they do not protect ideas, but only a particular expression and sequence of ideas. Miss FitzGerald's variant is that no educational theories can be proved, itself a variant of U.S. Education Commissioner Boyer's recent comment that "the only constant in educational research is the continuity of ambiguity." It seems that one can only conclude, as John Steinbeck once said, that writing books makes horse racing seem like a solid and stable occupation.

Despite a strong residue of truth in these skeptical contentions about research, I am not at all sure as a practicing publisher of twenty years that the picture is all that glum. There is a great need for more basic research in learning, and for years publishers have benefited from research on legibility, readability, vocabulary research, and improvement in validation techniques for instructional materials. During the years of performance contracting many publishers were able to build data that, given certain conditions, could reliably predict the performance of instructional materials on selected student populations. Many authors try out new ideas in the classroom and refine them into very effective teaching innovations, as did Dr. William Kottmeyer when he changed the teaching of spelling in this country from a rote memory task to a teaching of phonetic and structural generalizations. Manuscripts are tried out extensively by authors and publishers in classrooms at great expense, and we know the improvements we derive from this process, even though they cannot always be quantified. The aim is a practical one of ensuring that materials are clear and readable, that teachers can master the techniques required for a change as significant as the use of inquiry processes in the classroom. In short, we find in practice that innovations can and must be tested in the classroom.

In closing I would like to say that no one welcomes the sound and perceptive criticism of textbooks, such as they have received from this conference, from Frances FitzGerald and Paul Goldstein, more than publishers. Textbook publishers and authors need responsive and constructive criticism if they are to make books that will live up to the complex demands made upon them. Textbook publishing is a private part of the public enterprise of schooling. We must communicate better and more openly our views and our processes. Only the best will be good enough, and among our many critics we have often missed the keen and caustic minds, such as those at this conference, that are now giving textbooks the close examination they deserve. May their number increase!

Textbooks and the Publishers

Frances G. FitzGerald

Frances FitzGerald addressed the following remarks to the Association of American Publishers in New York City on November 13, 1979, at a program entitled "Textbook Publishers Meet Their Critics."

When I began work on *America Revised*,* my book about history textbooks, my intention really was not to criticize or try to reform anything, but rather to report, to try and understand the changes in the way Americans viewed their own society and the place of their country in the world. I chose textbooks primarily as a piece of popular culture. I chose them instead of, for example, campaign speeches of the presidents, because I feel that textbooks have to deal with the important and serious issues in a way those speeches often do not. And that by looking at their changes over time, I might discover a truly interesting index of popular attitudes.

This is the only reason I dealt with publishing procedures and practices: to show to what extent textbooks are important to people, to what extent they are democratic histories. I did not attempt to deal with the influences these books might have on the thinking of children because I found that to be unknowable. Nor, how they were used in the classroom. I really was not interested in education per se but rather in the textbook view of the world.

I was inclined to assume, from the teachers I talked to in the course of the project, that most of them used the textbooks very selectively; they also used a great deal of outside reading to provoke questions from the students. It is only since I wrote the book that I discovered that this is not entirely true, that textbooks have a *very* important influence on the teaching of U.S. history. A recent National Science Foundation study shows that the dominant instructional tool continues to be the conventional textbook, and that the long-time, big bestsellers continue to dominate the market. The dominant mode of instruction continues to be large group teacher control, recitation and lecture, but based primarily on the textbook. Teachers tend not only to rely on but to believe in the textbook as a source of knowledge. Textbooks are not seen as support material but as an essential element of instruction by most social studies teachers. Furthermore, in addition to being used to teach subject matter and reading skills, they are used for what the authors of the study called socialization—the advocacy of American values and a commitment (to the American "way of life"). Teachers teach facts in U.S. history not because the details are necessarily to be remembered and used, but also to create for each new generation an aura of American greatness.

I think these findings ought to give textbook publishers pause, since they show that publishers are a rather powerful force in society—comparable, perhaps, to television newsmen. Of course, I am perfectly aware that textbook houses do not control the exact content of textbooks. Otherwise I never would have written this book. Publishers are not ministries of truth: instead they stand in an ambiguous relationship to the contents of their books. On the one hand they are trying, or at least one hopes they are trying, to produce the best books possible; and on the other hand they must obey the demands of their consumers.

Nowhere did this become more clear to me than on a visit to one New York textbook house where I met a young woman who was revising a literature anthology for grade school. She called me into her office because

*(Boston: Little, Brown, 1979)

she was horrified by the new sort of fundamentalist upsurge in the country and she was being asked to delete all of the short stories that had words like "damn" in them—or at least to ask the authors to take them out. And she was also trying to find stories by two American women and one Puerto Rican man. I asked her if this was not a bit arbitrary and she said, well, you know, this is an absolute necessity. It is what we have to do to sell our books.

This story raises the eyebrows of people outside the textbook publishing business, but inside it is just all too common. It is an everyday occurrence and too typical. Social studies editors in particular know perfectly well what they have to do to get their books adopted in Texas or California. And these large adoption states are so important to the business that publishers usually do what is necessary. And of course, as you all know very well, it's not only the state boards that have influence but popular groups such as the preachers of Kanawa County or individuals such as Mrs. Ada White in the past and Mr. Mel Gabler in the present.

I do not think there is anything fundamentally wrong about this: indeed, I think it is probably fundamentally right. People who use these textbooks ought to have a say and the system should be democratic. But the question really is—and the first question is more or less for the sake of argument—what is the price you pay for a perfectly democratic system? What is the price you pay in intellectual quality, let us say, in the textbook?

The second question is not just for the sake of argument: is the system perfectly democratic? If not, who has more influence than others, and what effect does that have on the books themselves? Of course, the answer is that it can't possibly be perfectly democratic, there is no system in the world that is. And so one has to look rather carefully at whose voices are more powerful than others.

I addressed the first question, the academic one of what price we would pay for a perfectly democratic system, when I wrote about the intellectual tendencies among teachers and educators. Across the country teachers and educators apparently believe that they should teach history for nationalistic, often chauvinistic reasons, and that U.S. history is more or less a function of civics. It is not something that pleases me, but I do not suppose that there is anything to be done about it, certainly not from the point of view of publishers.

But the second question, the one of whose voices are louder than others, is one that should be of a great deal of interest to publishers. Alexander Burke said, in a talk he gave at the Library of Congress recently, that the current system, which he assumes is democratic, requires equal treatment of sexes and full representation of minorities. And this is pretty much the case at the moment. But it was not true at all until the mid-sixties.

If you read back into the history textbooks of the 1940s, the 1950s, and so on, I think you would be surprised at the changes of consciousness that have occurred since then. These books were more or less overtly racist and certainly treated women as sort of a secondary part of humankind. And it seems that the change has taken place, not because there are more women than there used to be, or because there are more blacks in the country than there used to be, but because there has been a real power shift—a shift that began with the civil rights movement in the early 1960s. At least the minorities are now being recognized in the textbooks. The real question is whether their history is being treated in the same way as the history of non-minority people. Actually, it turns out that in an exact sense everybody is a minority at this point. But what we call the plight of the minorities—is it treated in the same way as everyone else's history? And is it truthful?

I found that when I looked into the current history textbooks that, as far as the blacks, Mexican-Americans, and so on are concerned, there is a great deal of historical tokenism. For example, at least two books start with a Negro cowboy who discovers the remains of an Indian civilization that was 10,000 years old. Well, as opposed to, let us say, Columbus. That's real tokenism, because after all, we now know that Indian civilization is far more than 10,000 years old and the fact that this Negro cowboy happened to be wandering along the trail and discovered a mound is truly not the most important thing about black history in this country or in the history of black people. There is a good deal of that kind of thing. One finds figures like Crispus Attucks, who was, in fact,

the first victim of the American Revolution, but he simply happened to be shot. And he happened to be black. And one finds, also, in one text I found, a photograph of Anthony Quinn as representing Mexican-Americans.

The point is that this is trivia. And the textbooks, while they have made enormous improvements in the recording of the history of black people in our country, still fail to represent the views of minorities when those minorities are oppressed. Textbooks do not show why minorities are, in fact, minorities—how they get singled out to be minorities by the authorities. They do not show what these groups are complaining about. They contain an awful lot of the sort of rhetoric about American Indians struggling for their equal rights in their country, but they do not tell us what the Indians are struggling against.

It is the same way with the history of women in this country. One hears a lot about women reformers and the feminists, but not much about the condition of women in the 1840s that gave rise to the feminists.

Instead of any sense of what was really going on, one has a series of problems. There are problems that rise up in these books which tend to be problems for all of us, like the problem of pollution, which seems to create itself! It is just something that descends like a black cloud. I mean there are no polluters: there is only the pollution which we are all struggling against. And what I call the natural disaster theory of history. You know, essentially apolitical.

But there is a real message: what you discover from looking at the treatment of racial minorities in textbooks today is very much confirmed by what you discover by looking at the treatment of economics.

One international survey of 1,200 current social studies texts discovered that 37 percent of them named no causes for poverty; that 41 percent of them named rapid population growth and 30 percent of them discussed the relationship between poverty and international economic order. And 70 percent simply reflect the fact that such an order exists.

In the domestic context, I couldn't find more than one or two that discussed the relationship of poverty to the American economic system. Again, poverty was a problem, something like crabgrass, that kept springing up here and there.

Of course, it may be said that very few U.S. history textbooks discuss the American economy in any intelligible way at all. This, I think, is a big failure because the texts discuss the United States in terms of nineteenth-century economic systems and at the moment it is the new relationship between the private sector and the government sector that is so important in our lives. This relationship is hardly touched—except in dealing with social security or something like that, and certainly not with companies as entities. And the same is true with the relationship between the international or the global economy and the domestic economy. The two seem to be wholly separate.

But leaving this aside and looking again at this treatment of racial minorities and the treatment of the poor, I think you have to conclude that the textbooks are essentially giving a class perspective. It is a middle class perspective on economic matters. And this is very much as a result, I believe, of how textbooks get selected and who selects them and for what purposes. In other words, the system is not entirely democratic. And it is rather useful to know that—not that I think publishers can do very much about it.

But, as I said, the system is not entirely democratic. And publishers do have an important influence on what goes in textbooks. Often they take the lead, as indeed they must. And there's nothing, in principle, wrong with that at all. Publishers' influence on textbooks is terrific in many cases. I know, again from experience, that the publishing industry is filled with intelligent and dedicated people. There are many people in the country who try to analyze what is going on out there in the country and to bring some kind of philosophical or distant viewpoint to their work which makes their books more than hodgepodges of different pressure-group opinions.

I do, however, think that there are a few things that could be corrected or improved upon from within the publishing industry itself. I see, perhaps in publishing in general but in textbook publishing in particular, a growing tendency to treat books as assembly-line products. This tendency has been growing with the acquisition of small textbook houses by larger ones, and by the action of

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conglomerate executives whose companies have nothing at all to do with book publishing and no experience at it, but who more or less control the bottom line. These people are often insensitive about the needs of the very particular process of writing and editing books. The assembly line mentality tends to creep in, I think, to the textbook companies themselves.

Secondly, a tremendous amount of resources are put into sales. And perhaps more resources are put into sales than into the product itself. The time for the writers and editors to produce a book is being very much circumscribed, but the salesmen are always out there trying to persuade and convince the school boards and the teachers to buy. Now, of course, salesmen are a necessity and I certainly would not want to attack the system but I think those of you who know much more about this than I do would acknowledge there is a degree to which the salesmen become important as opposed to the product itself.

Now with regard to the actual contents of textbooks, I think you find in them a certain degree of sheer sloppiness that is not necessary. Secondly, there is a tendency toward a sort of pedagogical stylishness. I have discussed a number of examples in my book. One of them was the teacher's edition of a social studies series for K-6 that promised that each volume of the series would contain strategies designed to increase empathy and decrease inclinations toward egocentrism, ethnocentrism, and stereotyping. Now, that's a tall order, particularly since this book would reach into the lives of children from tropical climes around the earth. You know, it seems to me this is unnecessary. Thirdly, there is a certain amount of trivia that gets slapped in because that is what the customers want. And fourthly, there is terrible dullness—which I think is the main problem with history texts.

It seems to me that some of the dullness is perhaps inevitable. Some books include a chronology of the whole history of the United States and political pressures often prevent certain political arguments from being made as sharply as they might be made by historians. But I think it is truly possible to improve the quality of the writing—in spite of all the formulas publishers have to manage to get the reading levels to a particular grade level. But still, many of these books tend to turn children off of reading all together. If that is what one is learning to read for, why bother?

I think that publishers do have tremendous influence over these things because habitual practice is often as important as anything else in industry. These matters are simply a matter of practice and habit, it is not a question of law and it is not really a question of what the consumers want. It seems to me that there is room for improvement here, and I am sure that publishers are as interested as anyone else in seeing such improvement.

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Other Publications from the Center for the Book

Responsibilities of the American Book Community. 1980. 88 p. $7.95. Available from the Information Office, Library of Congress, Washington, D.C. 20540. Edited by John Y. Cole, the Center for the Book. Gathered together here are the papers from two seminars held at the Library of Congress on April 4–5, 1979, and April 25, 1980, selected statements of prominent authors and publishers before the 1980 U.S. Senate hearings on publishing and bookselling, and a report, "Can Books Survive the Book Business," based on the January 1980 PEN symposium. These papers and reports concern current trends in book publishing and seek to answer charges that through corporate takeovers the publishing business has become dominated by purely commercial interests to the detriment of the free circulation of ideas. The authors speak to the question by historical and personal accounts, by explanation, and by analysis. An informative and useful survey of current controversies in the book community.

Reading in America 1978. 1979. 98 p. $4.95. Available from the Information Office, Library of Congress, Washington, D.C. 20540. Edited by John Y. Cole, executive director of the Center for the Book, and Carol S. Gold, manager, marketing research, John Wiley & Sons. A summary of the most important findings of the Consumer Research Study on Reading and Book Purchasing, conducted by Yankelovich, Skelly and White, Inc., for the Book Industry Study Group, Inc. This inquiry into the reading and book-buying habits and motivations of the American public covers the United States population age sixteen and over from both a descriptive and a diagnostic viewpoint. Along with the findings are highlights from discussions held at the Library of Congress on October 25 and 26, 1978, and excerpts from comments on the study submitted to the Center for the Book following the discussions.

Television, the Book, and the Classroom. 1978. 128 p. $4.95. Available from the Information Office, Library of Congress, Washington, D.C. 20540. Edited by John Y. Cole, the Center for the Book. Eight papers delivered during a seminar at the Library of Congress on April 26 and 27, 1978, cosponsored by the Center for the Book and the U.S. Office of Education, on the possible uses of television in the classroom and on both its salutory and its deleterious effects on culture and learning. A summary of the discussion that followed each paper is provided. Includes opening remarks by Librarian of Congress Daniel J. Boorstin and U.S. Commissioner of Education Ernest L. Boyer, keynote talks by Mortimer J. Adler and Frank Stanton, a list of seminar participants, and a guide to further information on the subject.

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